

ABSOLUTE ACTUALITY AND THE PLURALITY OF WORLDS

Phillip Bricker
University of Massachusetts Amherst

I. Introduction

Let's fix some terminology at the start. A *world* (or *possible world*—for me, the 'possible' is redundant) is, first, an *individual*, not a set or class; second, a *particular*, not a property or universal; third, *concrete* in this sense: it is fully determinate in all qualitative respects; and, fourth, a *maximal interrelated whole*: each world is internally unified, and isolated from every other world.¹ There is at least one world, the world we are part of. It is an *actual* world, *the* actual world if there are no "island universes."² Worlds that are not actual (if any) are *merely possible*. A *realist about possible worlds* believes that there is a *plenitudinous* plurality of worlds: whenever something is possible—for example, that donkeys talk, or that pigs fly—there is a world in which it is true.

There is more than one way to be a realist about possible worlds. Realists divide into two camps depending upon their account of actuality. According to David Lewis, the worlds are ontologically all on a par; the actual and the merely possible differ, not absolutely, but in how they are related to us. Call this *Lewisian realism*.³ Most philosophers grant that Lewisian realism, if true, would bring substantial theoretical benefits to systematic philosophy. Nonetheless, few philosophers have been willing or able to believe it. Often the obstacle to belief is the supposed ontological extravagance that accompanies any full-blown realism about possible worlds: belief in talking donkeys and flying pigs—even if they are spatiotemporally and causally isolated from us—is deemed simply preposterous. But that objection is based on prejudice, not argument; and it is not a prejudice I share. Objections to Lewis's account of actuality, however, are another matter. I take it to be conceptually evident that actuality is absolute, not relative, and that, moreover, the distinction between the actual and the merely possible is a distinction in ontological status: whatever is ontologically of the same fundamental kind as something actual is itself actual. When Lewis insists,

then, that all worlds are ontologically on a par, I can only understand this—his protests notwithstanding—as saying that all worlds are equally actual. But that makes Lewis’s defense of a plurality of worlds incoherent. For there could be no good *a priori* reasons for believing in a plurality of *actual* concrete worlds. And an analysis of modal operators as quantifiers over concrete parts of *actuality*, no matter how extensive actuality may be, is surely mistaken. I thus reject Lewisian realism.⁴

Can one preserve the theoretical benefits of realism about possible worlds by combining it with an account of actuality as an absolute property that marks a distinction in ontological status? Call this combination *Leibnizian realism*.⁵ Lewis thought not. He writes: “given my acceptance of a plurality of worlds, the relativity [of actuality] is unavoidable.”⁶ Indeed, by the time Lewis wrote *On the Plurality of Worlds*, he thought it sufficient to devote less than one page containing two brief arguments to the refutation of Leibnizian realism, in part because the two arguments were already well known,⁷ in part, no doubt, because he took the arguments to be decisive.⁸ True, Lewis did spend eight pages presenting and objecting to a view that in some ways resembles Leibnizian realism, a view he calls “pictorial ersatzism”—an odd, hybrid view that, I suspect, no one has or ever will hold. But in the end his chief objection to pictorial ersatzism is that, when fully and properly developed, it collapses into (a version of) Leibnizian realism, in which case it loses the supposed advantage of having a safer and saner ontology than Lewisian realism, and takes on the distinct disadvantage of having already been refuted.

What are the two arguments that, supposedly, refute Leibnizian realism? One is that the Leibnizian realist cannot account for the contingency of actuality. But this problem, I will argue, admits of an easy and natural solution as soon as the Leibnizian distinguishes between what is true *of* a world and what is true *at* a world—a distinction the Lewisian needs in any case for the analysis of *de re* modality. A property is true *of* a world when the world has that property; a property is true *at* a world when the world *represents* itself as having that property. With respect to actuality, these two notions do not coincide: every world represents itself as being actual. By interpreting possibility and necessity in terms of what is true at a world rather than (just) what is true of a world, the contingency of actuality can be secured by the Leibnizian. There is indeed a residual question whether this notion of truth at a world requires primitive modality. I shall argue below that it does not.

The second argument against Leibnizian realism is more challenging. Surely, Lewis says, we know that we are actual; skepticism about our own actuality is absurd. With this I agree. But, the argument continues, if Leibnizian realism were true, we could not have this knowledge. For the Leibnizian must allow that there are concrete merely possible people who are epistemically situated exactly as we are: there is no evidence that can distinguish our predicament from theirs. But then we can’t rule out the possibility that *we* are the merely possible people inhabiting a merely possible world. We don’t know that we’re actual after all.

The first thing to say in response is that this is not just the Leibnizian realist's problem. Suppose you believe in sets. I ask: how do you know you are an individual, and not a set? Suppose you believe in universals. I ask: how do you know you are a particular, and not a universal? These questions, I argue below, do not have the answers one might at first expect. The problem of skepticism about actuality for the Leibnizian realist is in crucial ways analogous to the problem of skepticism about individuality, or particularity, for the realist about sets, or universals. So if the Leibnizian realist is in trouble, he has a lot of company. Lewis is a realist about sets.⁹ Most prominent "actualists" believe in sets or universals or both, and make essential use of them in their accounts of modality.¹⁰ The Leibnizian realist, then, when confronted with the skeptical problem, can justifiably respond: *tu quoque!*

Unfortunately, *tu quoque* arguments, even when sound, are never fully satisfying: knowing that (almost) everyone sinks or floats together does nothing to help one float. The main thrust of this paper, once preliminaries are out of the way, will be to develop and defend a positive Leibnizian solution to the problem of skepticism about actuality.¹¹ Knowledge of one's actuality, I will argue, is fully compatible with actuality being an absolute property that some things have and other things lack. As with other cases of contingent, *a priori* knowledge, what matters is that the property in question is picked out indexically; the property thereby picked out may be as robust and absolute as you please. In this way, the Leibnizian rejects what is objectionable in Lewis's account—that the *property* of actuality is merely relative—while preserving what is needed to solve the skeptical problem—that the *concept* of actuality is indexical.

Explaining *how* we know that we are actual is the easy part of the problem. Explaining just *what* we know in virtue of knowing that we are actual is more problematic. Is knowledge that I am actual trivial and uninformative, like knowledge that I am here? Or is it substantive knowledge *de se*, knowledge of where I am located in logical space? The answer, surprisingly, depends on the particular version of Leibnizian realism that one accepts. The Leibnizian who holds that there is substantive knowledge *de se* should endorse, I claim, a form of (ontological) perspectivalism: our perspective on reality is an integral part of that reality; a perspectiveless account of reality is inevitably incomplete. Moreover, this Leibnizian has the additional burden of explaining how we can have such knowledge even though our merely possible counterparts do not. This Leibnizian, it turns out, can only be an ontic egalitarian—allowing, for example, that merely possible people exist and have the same sort of qualitative properties, physical and mental, that we do—by being an epistemic chauvinist. *We* are epistemically privileged simply by virtue of being actual; *our* perspective on logical space cannot fail to be the right perspective for acquiring knowledge. At first blush, resorting to epistemic chauvinism might appear to be an *ad hoc* stratagem for saving (this version of) the Leibnizian theory from refutation. Not so. Epistemic chauvinism, in my view, will need to feature in any adequate account of *a priori* knowledge. To reject it would be to embrace, not just skepticism about actuality, but a general skepticism about matters *a priori*.

II. Motivations for Realism about Possible Worlds

I should say something about the motivation for realism about possible worlds and *possibilia*, as I see it. Unlike Lewis (1986: 3–5), I do not take the theoretical benefits of belief in *possibilia* to be a reason to think the belief true: wishful thinking is no more rational in metaphysics than in everyday life. Rather, I believe in *possibilia* because I take the existence of *possibilia* to be a prerequisite, not just for modal thought, but for thought in general. Thus, I take the primary motivation for belief in *possibilia* to arise from the nature of *intentionality*: *possibilia* provide the requisite objects that our intentional states are about (in one sense of ‘about’), and, more generally, the framework for the content of all language and thought. But the nature of intentionality, by itself, takes us only partway. We also need to consider the nature of *modality*: *possibilia* provide the requisite domain over which modal operators range, and, more generally, the subject matter for all modal statements. Considerations of intentionality are primary, establishing the existence of *possibilia*; considerations of modality are needed in addition to establish their abundance.

I present the line of thought that leads me to realism about possible worlds in a series of six theses. My commentary on these theses will be brief, contentious, and largely dogmatic; my primary goal in this paper is to defend Leibnizian realism against Lewis’s charges, not to expound the theory from scratch. First, a terminological warning. Although I make heavy use of intentionality in motivating my belief in *possibilia*, I speak like a possibilist, not a Meinongian.¹² What I mean by ‘is actual’ is, more or less, what the Meinongian means by ‘exists’. What I mean by ‘exists’ is, more or less, what the Meinongian means by ‘is’ or ‘has being’. I say: whatever is, exists. The Meinongian says: there are some things—for example, merely possible objects—which do not exist. It is an interesting question which mode of speaking is more in accord with ordinary language; I think a case can be made either way. Neither can be in very close accord with ordinary language because both abstract from the heavy context-dependence of words like ‘is’ and ‘exists’. In any case, this difference with the Meinongian is superficial. More substantial differences come out in the third and fourth theses below.

First Thesis: Narrowly psychological intentional states are genuinely relational. Intentional states can be given either a wide or a narrow interpretation. When interpreted narrowly, the content of the state is independent of whatever relations of acquaintance the subject has to objects in her environment. I am interested here only in narrow intentional states. There are two sorts of narrow intentional state, neither reducible to the other: those states, such as belief, that relate subjects to propositions (or perhaps properties), and those states, such as fear (in one sense), that relate subjects directly to objects. The path to *possibilia* is more direct with the latter sort of state, so let us focus upon one of them: the state of *thinking about* some object or objects. Suppose, for example, that I am now thinking about a dodecahedron made of solid gold. I can do this, of course, whether or not any

such object actually exists. *Thinking about*, I claim, is relational, and relations require *relata*. So, if there are no actual gold dodecahedra, only merely possible gold dodecahedra are available to be objects of my thought; I am related to possible but non-actual objects.

Second Thesis. The qualitative nature of objects of thought is independent of their status as actual or merely possible. Suppose again that a merely possible gold dodecahedron is an object of my thought. I ask: does this object of my thought *instantiate* the properties, being gold and being a dodecahedron? Or does it instead somehow *represent*, or *encode*, or stand in some *pseudo-instantiation* relation to these properties? I say the former. It is one thing to think about a gold dodecahedron, another thing to think about some abstract simulacrum thereof. If I am thinking about a gold dodecahedron and *thinking about* is genuinely relational, then there is (in some part of reality) a gold dodecahedron that I am thinking about. That it is made of gold and shaped like a dodecahedron is independent of whether it is actual or merely possible. Indeed, nothing prevents actual and merely possible objects from being perfect qualitative duplicates of one another.¹³

Third Thesis. Objects of thought are fully determinate. Intentional states such as *thinking about* are typically indeterminate with respect to their objects. In thinking about a gold dodecahedron, I was not thinking about a gold dodecahedron of any particular size. Should I say, then, that I was related by my thought to an object that has no definite size? No. It is one thing to think indeterminately about a gold dodecahedron, another thing to think about an indeterminate object. The indeterminacy was in the thinking, not the object of thought. I was related by my thought to a multitude of possible gold dodecahedra with a multitude of different, but fully determinate, sizes. We can call upon the method of supervaluations to explain why I can truly say that there is one thing that I was thinking about: a dodecahedron made of solid gold.¹⁴

Fourth Thesis. There are no impossible objects of thought. Prima facie, I can think about impossible no less than possible objects, round squares no less than flying pigs. Why doesn't the relational character of intentionality apply with equal force in both cases? The reason, in a word, is logic; and logic trumps appearances. To follow appearances by positing impossible objects would be to endorse contradictions and thereby sink into incoherence. Better to concede that, not being logically omniscient, we are fallible when we judge that a thought has reached its target. Frege believed that there were entities satisfying his set-theoretic axioms, entities that he had thought long and hard about. There weren't, and he hadn't.¹⁵

Fifth Thesis. Every object of thought is part of a fully determinate possible world. When I think about a gold dodecahedron, I need not think about how it is situated with respect to other objects. But that is just another aspect of the indeterminacy of my thought. Each possible gold dodecahedron has a determinate *extrinsic* nature; my thought doesn't discriminate between differently situated gold dodecahedra, and it therefore ranges indeterminately over them all.

Perhaps, as I believe, there is a world consisting of a solitary gold dodecahedron, and nothing else. But then distinguish: it is one thing to think about a *solitary* gold dodecahedron, another thing to think about a gold dodecahedron without considering how it relates to other objects. In the former case, what I am thinking about stands in no spatial or temporal relations to other objects; in the latter case, using the method of supervaluations, it is neither true nor false that what I am thinking about stands in spatial or temporal relations to other objects. In either case, the possible gold dodecahedra that are objects of my thought belong to fully determinate possible worlds.

Sixth Thesis. There is a plenitude of possible worlds. Human intentionality takes us only so far. Our intentional states are limited in their discriminatory powers; a somewhat impoverished space of *possibilia* could account for the relationality of our thought. But it would be deficient as a subject matter for modality. We need in addition to require that the space of *possibilia* satisfy principles of plenitude, principles stating that if such-and-such is possible, then such-and-so is possible as well. The specific formulation of such principles won't matter for this paper.¹⁶ I will simply assume that there is a plenitude of possible worlds sufficient to ground the fundamental link between possibility and *possibilia*: whatever is possible is true in some possible world. With plenitude in place, we can take the realm of *possibilia* to be the realm of thought for all actual and possible thinkers.¹⁷

III. Lewisian vs. Leibnizian Realism

Both a Lewisian and a Leibnizian can accept the six theses adumbrated above. They can agree on the concrete nature and the extent of *possibilia*; they disagree, however, on the nature of actuality. According to the Lewisian, it makes no sense to ask whether something is actual *simpliciter*, only whether something is actual *relative* to something else. In short:

Lewisian Thesis. Actuality is relative.

For the Lewisian, what is fundamental is not the property, *being actual*, but the relation, *being co-actual with*. When we say simply that something *x* is actual, that is to be understood as saying that *x* is co-actual with some *y*, where *y* is supplied by the context of utterance, perhaps the speaker, perhaps the speaker's world. *Co-actuality* is an equivalence relation, and it therefore partitions the space of *possibilia*—*logical space*—into distinct regions. The inhabitants of any one region are all actual relative to one another, but not actual relative to the inhabitants of any other region. We inhabit one of these regions. We have perfect qualitative duplicates that inhabit others of these regions. According to the Lewisian, we do not differ from these duplicates ontologically in any way: we all belong to the fundamental ontological kind, *concrete individual*.

A Lewisian might take the relation of co-actuality to be primitive and unanalyzable. That has the advantage of allowing for the possibility of island universes: worlds that are spatiotemporally (and otherwise) isolated from one another may nevertheless be co-actual; and two or more co-actual worlds may be taken to represent the possibility of island universes. But it also has a severe disadvantage: primitive co-actuality is primitive modality. The truth or falsity of some general modal claims, such as that island universes are possible, depends upon how the co-actuality relation is laid out through logical space. Since one of the chief merits of realism about possible worlds is the avoidance of primitive modality, the Lewisian may well choose to sacrifice the intuitive possibility of island universes and opt instead for an analysis of co-actuality. That is what Lewis himself does. With the possibility of island universes off the table, the co-actuality relation reduces for Lewis to the worldmate relation: possible objects are *co-actual* iff they are worldmates. And, then, for Lewis, possible objects are *worldmates* iff they are spatiotemporally related.¹⁸

The Leibnizian will have none of this. According to the Leibnizian, it is incoherent to suppose that actual objects and merely possible objects do not differ in ontological status. The Leibnizian holds that actuality is a property that objects have or fail to have *simpliciter*, not relative to something else. In short:

Leibnizian Thesis. Actuality is absolute.

For the Leibnizian, the property, *being actual*, is more basic than the relation, *being co-actual with*: two objects are *co-actual* just in case both are actual. Is the property of actuality analyzable? There have, of course, been historically important attempts at analysis—most memorably, to be actual is to belong to the best of all possible worlds—but none of these analyses, I think, would be considered at all plausible today. I will therefore assume that the Leibnizian takes the property of actuality to be primitive.¹⁹ Is that a cost to the theory? Not because primitive actuality is primitive modality: as we shall see in the next section, what is possible—including what is possibly actual—is independent of the extent of actuality. Perhaps there is a cost whenever one accepts more than one fundamental ontological kind. But if the Leibnizian is right that the actual and the merely possible differ in ontological status, then that is a cost that will have to be borne.

Taking actuality as primitive doesn't mean that anything goes: even primitives have their constraints. In particular, the Leibnizian will surely want to accept the harmless half of Lewis's relational analysis: anything spatiotemporally (or, I would say, externally) related to something actual is itself actual. But since distinct actual objects need not be spatiotemporally (or externally) related to one another, the possibility of island universes is not ruled out. Score one for the Leibnizian.

Traditional Leibnizian realism also adds the thesis that exactly one world is actual. As noted at the start, I prefer instead to leave it open how many

worlds are actual to accommodate the possibility of island universes. Even the two extremes—that every world is actual, that no world is actual—are not ruled out. The latter extreme, however, I shall argue, is not *epistemically* possible: we know that our world is actual.

Leibnizian realism, whether traditional or non-traditional, comes in two main versions. According to one version, the property of actuality applies to a realm of entities entirely separate from the realm of *possibilia* postulated by the six theses. Thanks to plenitude, however, our world will have an exact qualitative duplicate among the merely possible worlds. That duplicate is *actualized*, not *actual*.²⁰ (More generally: a merely possible world is *actualized* if and only if some actual world is a qualitative duplicate of it.) Call this the *creation* version of Leibnizian realism because, on the myth of God surveying the possible worlds and then making a world actual, this version requires that God *create* a not yet existing actual world to match the possible world he likes best.

According to the other version of Leibnizian realism, the property of actuality applies directly to the *possibilia* postulated by the six theses, dividing them into two classes: actual and merely possible. On this version, the actual world need not have a merely possible qualitative duplicate. Call this the *transformation* version of Leibnizian realism because, on the God myth, God makes a possible world actual, not by creating it anew, but by *transforming* it into an actual world. Once this talk of God is excised, however, the distinction between being actual and being actualized drops out on this version: a possible world is actual just in case *it itself* is actualized.

The difference between the creation and transformation versions is starkest if the Leibnizian accepts the identity of qualitatively indiscernible worlds: only on the creation version will each actual world have a qualitative duplicate among the merely possible worlds. But if the identity of qualitatively indiscernible worlds is uniformly rejected,²¹ and, say, there is only one actual world, then the creation and transformation versions of Leibnizian realism will not differ in their depiction of logical space: the actual world will have a merely possible duplicate on either view. But for the non-traditional Leibnizian the two versions can still be clearly distinguished, for example, by considering the possibility of *universal actualization*, the possibility that every possible world is actualized.²² On the creation version, this possibility is realized when, for every possible world, there is a duplicate world that is actual: there are still two distinct realms, the realm of the merely possible and the realm of the actual. On the transformation version, this possibility is realized when every possible world is itself actual, when there are no merely possible worlds.²³

Which version of Leibnizian realism is to be preferred? Suppose we understand intentional relations, such as *thinking about*, on the model of *grasping*: an actual subject mentally reaches out and grasps merely possible objects occupying an ontological realm distinct from that of the subject; the subject is *directly* related by this mental grasping only to merely possible objects, although the subject can be indirectly related to an actual object by grasping a merely possible duplicate of

it; moreover, these grasping relations are genuine, external relations that connect one ontological realm with another. This model of intentionality leads straight to the creation version of Leibnizian realism according to which an actual world is required to have a merely possible duplicate. For if an actual world in its entirety lacked a merely possible duplicate, it would be unthinkable (in its entirety), even in principle.

I reject the grasping model of intentionality. For one thing, if I allowed that *thinking about* was an external relation, I would be hard-pressed to explain why the objects of our thought are not themselves actual; for I hold that whatever we are externally connected to, whether it be by spatiotemporal, or causal, or mental grasping relations, is thereby a part of actuality.²⁴ We are related by our thought to mere *possibilia* by description, not by acquaintance. For another thing, I find the supernatural relation of grasping utterly mysterious. I take thinking to be a natural phenomenon: if we have the capacity to think about merely possible objects, we have that capacity in virtue of the natural properties and relations instantiated by us, our parts, and perhaps the objects in our environment. Intentional relations, such as *thinking about*, supervene on the intrinsic natures of the thinker (and perhaps the thinker's world) and the objects the thinker thinks about. I cannot think about one but not the other of two indiscernible merely possible objects; nor can an indiscernible merely possible counterpart of me be thinking about anything that I am not. Intentional relations take their *relata*—the subjects and objects of thought—indiscriminately from either realm: there are merely possible thinkers; there are actual (direct) objects of thought.

When we switch from the supernatural to the natural model of intentionality, we can give up the unnecessary duality of actual worlds and their merely possible copies. There is simply the realm of *possibilia*, and the absolute distinction that divides the realm into actual and merely possible. Thus, I favor the transformation version of Leibnizian realism. But in what follows, I will mostly put this preference to one side.²⁵

There is one final issue over how to understand Leibnizian realism that will play an important role in what follows. I have spoken of an absolute distinction between the actual and the merely possible, and of an absolute property of actuality that grounds this distinction. This property of actuality, of course, is not a property merely “in the abundant sense,” according to which any old collection of things can be said to share a property. Actuality must be a property “in the sparse sense”: when two things are actual, they genuinely have something in common.²⁶ What they have in common, however, cannot be a qualitative feature; rather, it is that they belong to the same fundamental ontological kind. How can one distinguish those properties (in the sparse sense) that are qualitative from those that are not? The fundamental *non*-qualitative properties and relations are needed to provide the underlying framework for logical space. Here I include, in addition to sameness-of-ontological-kind properties, identity, part-whole, instantiation, and perhaps spatiotemporal and other external relations. Fundamental qualitative properties and relations, on the other hand, can be

distinguished as those that are subject to principles of recombination: they are distributed over logical space every which way. These partial explanations are not intended as analyses, of course; they are merely hints to the reader, aids to understanding.

Now, the issue that will be needed below can be raised by asking the following questions: Is there, in addition to the property of actuality, also a property (in the sparse sense) of being merely possible, a property shared by all and only the mere *possibilia*? Or, is something merely possible simply in virtue of *lacking* the property of actuality? In the latter case, I will speak of *one-property* Leibnizian realism: actual things are distinguished by having a special property of actuality; the actual and the merely possible are ontologically distinct, but the merely possible do not form a genuine ontological category.²⁷ In the former case, I will speak of *two-property* Leibnizian realism: there is an ontological symmetry between the actual and the merely possible; there are two distinct ontological categories, the members of each lack a property had by the members of the other.

One-property Leibnizian realism seems most naturally aligned with the transformation version: actual things have a special ingredient that distinguishes them, ontologically, from their merely possible qualitative duplicates. I do not think that there is much more that can be said about the nature of this property: even characterizing it as making the actual “more real” than the merely possible seems to be lacking in genuine content. Two-property Leibnizian realism seems better suited to the creation version: there are two separate realms of being, two fundamental ontological categories, neither ontologically inferior to the other. But I suppose the creation version could be combined with a one-property view, or the transformation version with a two-property view. So, although I tend to favor the one-property view, I will remain officially neutral, and when it matters, I will consider all available options.

IV. The Contingency of Actuality

I am actual. But it didn't have to be that way. Had a massive asteroid plowed into the Earth ten million years ago wiping out all life, I would not have been actual. Flying pigs, on the other hand, are merely possible (let us suppose). Again, it didn't have to be that way. Had a mutation arisen that gave pigs (powerful!) wings, some of the merely possible flying pigs would have been actual. Individual things are *contingently* actual or non-actual (excepting necessary existents, if any). So too for entire worlds. Any actual world might not have been actual; indeed, I think that there might have been no actual world at all. And any merely possible world might have been actual; indeed, I think that every world might have been actual together.²⁸

Can the contingency of actuality be squared with the absoluteness of actuality, as the Leibnizian is committed to believe? Lewis thought not. Here is his entire argument as it appeared in *On the Plurality of Worlds*:

Surely it is a contingent matter which world is actual. A contingent matter is one that varies from world to world. At one world, the contingent matter goes one way; at another, another. How can this be *absolute* actuality?—The relativity is manifest! (p.94, his emphasis)

We need to flesh this out a bit. Here is one way of developing the argument.²⁹ Suppose, for *reductio* against the Leibnizian, that there is an absolute property of actuality. Let w be a world that is (absolutely) *not* actual. Since actuality is contingent, there is a world at which the proposition, w is actual, is true—presumably, w itself. But—and here is the crucial move—if w is actual is true at w and actuality is absolute, then w is actual is true *simpliciter*, contradicting the initial assumption. The contradiction can be avoided, it seems, only by making actuality relative to worlds.

What justifies the crucial move from “the proposition w is actual is true at w ” to “ w is actual is true *simpliciter*”? Lewis is supposing that all realists about possible worlds must accept something like his own account of *truth at a world*:

For me, truth at a world is a simple matter. It is just truth, with world dependent linguistic elements evaluated at the world in question. For instance—and this alone will take us a lot of the way—quantifiers must (usually) be restricted to inhabitants of the proper world. Thus it is true at a certain world that some pigs fly iff some inhabitants of that world are pigs that fly.³⁰

The argument can now be filled in as follows: If actuality is absolute, then the sentence ‘ w is actual’ contains no “world-dependent linguistic terms.” Therefore, the ‘at w ’ drops out as superfluous. That is to say, switching harmlessly from sentences to propositions: w is actual is true at w if and only if w is actual is true. Which it isn’t. Farewell contingency.

In response, the Leibnizian must deny that Lewis’s account of *truth at a world* is fully general. Let us say, for any property F , that the proposition w is F is true *of* w if and only if w is F . Then, what the Leibnizian must deny, at least for the case of actuality, is that what is true *at* a world—how the world *represents* itself to be—coincides with what is true *of* the world—how the world really is. Whenever F is a qualitative property, the two notions coincide for the Leibnizian: if a world *represents* itself, say, as having seventeen dimensions, or having flying pigs as parts, then the world *does* have seventeen dimensions, or flying pigs as parts. This contrasts sharply with the ersatzers, linguistic and magical, for whom what is true *at* a world is rarely if ever what is true *of* the world. But, in the case of actuality, every world represents itself as being actual, according to the Leibnizian, whether it is actual or not. Since truth conditions for modal statements, for realists and ersatzers alike, are given in terms of what is true *at* worlds, what worlds *represent* to be the case, the Leibnizian can have her cake and eat it too: the contingency of actuality without sacrificing its absoluteness.

Incidentally, it is not just the problem of the contingency of actuality that pushes the Leibnizian down this road. When we contemplate possible worlds in

the course of making decisions or forming beliefs, we always consider possible worlds under the supposition that they are actual. Suppose I ask whether I would have been better off had I done something other than I did. It would be absurd for you to reply: "Of course not. You would have been much worse off; you would have been merely possible instead of actual!" Thus, the Leibnizian agrees with the Lewisian that, with respect to the role that possible worlds play in our mental life, the worlds are all on a par: when we consider any world, we consider it as actual. But for the Leibnizian, there is a sober metaphysical fact as to whether a world is actual or not, no matter how irrelevant that fact is to the world's ordinary role.

Could a Lewisian realist charge that, by detaching *true at a world* from *true of a world*, the Leibnizian forgoes her realist credentials? I think not. All realists need to invoke the distinction between what is true at a world and what is true of a world in order to provide adequate truth conditions for *de re* modality. Consider the standard example. Humphrey might have won the election in 1968; there is a world *w*, then, at which Humphrey wins.³¹ According to the realist, this is to be understood in terms of Humphrey's counterparts: Humphrey wins at *w* in virtue of *w* having among its parts a winning counterpart of Humphrey, not Humphrey himself. Now consider the property, *having Humphrey among its parts*. The proposition *w has Humphrey among its parts* is true at *w*, but not of *w*. The Lewisian thus distinguishes between what individuals a world *represents de re* as existing, and what individuals in fact exist there. This distinction is motivated, of course, by a desire to get the truth conditions for *de re* modal statements right while holding to a metaphysics of worlds believed on independent grounds, in particular, that worlds don't overlap. If the Lewisian can invoke this distinction to account for *de re* modality, why can't the Leibnizian do the same to account for the contingency of actuality, to get the truth conditions for modal statements about actuality right?

The Lewisian may legitimately insist, however, that whenever what is true at a world differs from what is true of a world, there be an account of how representation by worlds works that does not rely on primitive modality. This demand can be met in the case of representation *de re* so long as counterpart relations are based on qualitative similarity. Can this demand be met by the Leibnizian in the case of the representation by worlds of their own actuality? It won't do, of course, for the Leibnizian simply to call upon the general formula: what is true at a world *w* is what would have been true had *w* been actual. That leads to the desired result, that every world is actual at itself, but it invokes modality to do it. The formula should follow from the Leibnizian's account of representation by worlds, not constitute it.

What saves the Leibnizian is that actuality is a special case: no general analysis of representation is needed to account for it; a one-off analysis will do. The Leibnizian can simply accept whatever account a Lewisian provides for representation by worlds, and then add a separate clause to deal with the property of actuality. For the traditional Leibnizian, the added clause is: *world w is actual* is true at *v* if and only if *w* is identical with *v*.³² The contingency of actuality then

follows immediately: *for any world w , possibly, w is the one and only actual world.* For the non-traditional Leibnizian realism that I endorse, the added clause is less familiar because truth conditions for propositions are given relative to *classes* (or aggregates, or pluralities) of worlds, rather than relative to single worlds.³³ Intuitively, a proposition is true at a class of worlds if it would have been true had all and only the worlds in that class been actual. The clause, then, that should be added to the Lewisian account is: for any world w and any class of worlds V , *world w is actual* is true at V if and only if w is a member of V . The analyses of possibility and necessity must now be amended as well: a proposition is *possible* if and only if it is true at some class of worlds; *necessary* if and only if it is true at every class of worlds. To illustrate: the proposition *exactly two worlds are actual* is true at any pair of worlds, and is thus possible. The proposition *every world is actual* is true at the class of all worlds, and is thus possible; but it is not necessary since it is not true at any proper subclass of the class of all worlds. Now, given the added clause and the amended analysis of possibility, we have the contingency of actuality in the following form: *for any class of worlds W , possibly, all and only the members of W are actual.* With the contingency of actuality secured in this way, the Leibnizian can provide a sense in which logical space as a whole (the aggregate of all worlds) might have been different with respect to the distribution of actuality without having to conjure up a disheartening regress of ever more inclusive logical spaces to account for it.

Whether one opts for traditional or non-traditional Leibnizian realism, there is no way that the extra clauses providing truth conditions for *world w is actual* can conflict with the Lewisian account to which they are added. That is because, on the Lewisian account, what worlds represent to be the case depends entirely on the qualitative nature of those worlds, whereas, for the Leibnizian, the property of actuality is independent of all qualitative features. There is thus no risk that in accepting the extra clause, a world may end up representing itself both as p and as *not p* , for some proposition p ; no need for primitive modality to ensure that worlds are genuinely possible. Of course, the one-off analysis would be modal if actuality itself were a modal property. But, as already noted in section III, it is not: what worlds are possible is prior to, and independent of, what world or worlds are actual. I conclude that the Leibnizian has an adequate response to the first of Lewis's two arguments.

V. Skepticism About Actuality

I know that I am actual and not merely possible—no doubt about that. The question is: how do I know it? According to Lewis's second argument against Leibnizian realism, the Leibnizian is in a poor position to answer this question. Here is how Lewis presents the argument in *On the Plurality of Worlds*:

... one world alone is ours, is this one, is the one we are part of. What a remarkable bit of luck for us if the very world we are part of is the one that is absolutely

actual! Out of all the people there are in all the worlds, the great majority are doomed to live in worlds that lack absolute actuality, but we are the select few. What reason could we ever have to think it was so? How could we ever know? Unactualized dollars buy no less unactualized bread, and so forth. And yet we *do* know for certain that the world we are part of is the actual world . . . (p. 93).

I would object to Lewis's assumption that, for the Leibnizian, only one world is absolutely actual, so that "the great majority" of people lack absolute actuality. For all I know, it may be the other way around. But that hardly helps. The argument doesn't get its force from probabilistic considerations. If there are merely possible people epistemically situated exactly as I am—no matter how many—then I can't rule out my being in their predicament. I can't know that I am actual.

Let me lay out the skeptical argument in a series of numbered steps for future reference, and then add some brief commentary. Say that two subjects of thought are *epistemic counterparts* iff they have exactly matching perceptual experience (and other evidence, if there is any). Now, the Leibnizian realist is committed to: (1) I have epistemic counterparts inhabiting other possible worlds; and (2) actuality is an absolute property that I have and (some of) my epistemic counterparts lack. It follows that (3) none of my evidence rules out the possibility that I am merely possible rather than actual. Therefore, the argument concludes, (4) I do not know that I am actual.³⁴ Two brief comments are in order. First, the argument is presented from an "internalist" perspective, as is befitting Lewis's own views about knowledge (Lewis: 1996). But by choosing epistemic counterparts that are qualitatively indiscernible from me—or very nearly so, if one rejects qualitatively indiscernible worlds—the argument will apply to a wide range of "internalist" and "externalist" accounts of knowledge. Indeed, the only restriction on what counts as "evidence" is that evidence be qualitatively characterizable; I do not need to suppose it is "internally accessible." Secondly, premise (2), as stated, is incompatible with universal actualization. This could be remedied by prefixing each premise with the epistemic operator, 'for all I know'; but I will ignore this complication.

I will return to this argument in due course. I want to begin, however, by briefly dismissing two Leibnizian responses that are not, I think, satisfactory. According to the first response, the Leibnizian should embrace skepticism about actuality, at least when in the philosophy room. After all, it is not uncommon for metaphysicians to introduce new skeptical possibilities in the course of developing their theories. To reject a metaphysical theory because it leads to skepticism—as Lewis does—would be wrongly to hold metaphysics hostage to epistemology. If we have good reason to accept Leibnizian realism and Leibnizian realism leads to skepticism about our actuality, then we have good reason to be skeptical about our actuality. So goes the first response.³⁵

This response fails, however, because skepticism about actuality is not at all analogous to familiar brands of skepticism.³⁶ Skepticism about the external world, or the past, or other minds, is palatable *in the philosophy room* only because

we have a satisfactory account of how *in ordinary contexts* we speak truly when we say that we know. For example, if I say in an ordinary context, “I know that my arm is broken,” I speak truly (we may suppose) even though I cannot rule out being a brain in a vat with simulated experiences that match my own. In ordinary contexts, alternative possibilities in which there are such bodiless brains in a vat are irrelevant, and “properly ignored.”³⁷ But skepticism about actuality cannot be made palatable in this way. To save my knowledge of actuality in ordinary contexts, all mere possibilities containing epistemic counterparts of me would have to be deemed irrelevant; and the only principled way to do that would be to deem *all* mere possibilities irrelevant. That gives the wrong result for knowledge of other matters of fact. If only one world is actual, knowledge of actuality would be saved in ordinary contexts by making knowledge of other matters too easy: we would be *omniscient* in ordinary contexts, at least with respect to contingent matters of fact. In any case, however many worlds are actual, knowledge of actuality would be saved in ordinary contexts by making knowledge of other matters depend on an epistemically irrelevant factor: the extent of actuality. But if skepticism about actuality can’t be confined to the philosophy room, then embracing skepticism about actuality just in the philosophy room isn’t an option for the Leibnizian.

A second response invokes again the distinction between what is *true at* and what is *true of* a world. I know that I am part of some world; and that any part of a world is actual at that world. (The latter results, as seen above, from my understanding that actuality is contingent.) Thus, I know that I am actual at my world; I know, in other words, that the proposition, *I am actual*, is true at my world. But, truth at my world is truth *simpliciter*. Therefore, I know that I am actual. So goes the second response.

Clearly, this response evades the problem rather than solving it. Granted, given the distinction between what is true at and what is true of a world, we can distinguish two questions: how do I know that *I am actual* is true *at* my world? And, how do I know that *I am actual* is true *of* my world, that is, how do I know that my world is (absolutely) actual? Perhaps the question—“How do I know that I am actual?”—is ambiguous within the Leibnizian framework, and can be interpreted either way. Interpreted the first way, the question is indeed easily answered by reflecting on the contingency of actuality, and the requirement that every world represents itself as being actual. But answering this first question does not make the second question go away. No doubt, when Lewis asks—“How could we ever know?”—it is the second question that he has in mind, and nothing has yet been done to resolve the skeptical problem that it raises.

It may seem that my approach to the problem of skepticism is at variance with my approach to the problem of contingency. For the claim, *every world is contingently actual*, can also be taken to be ambiguous within the Leibnizian framework; when interpreted in terms of *truth of* rather than *truth at*, it comes out false, not true. Why do I allow the contingency claim to come out false on

one of its interpretations, while requiring the knowledge claim to come out true on both its interpretations? The difference is this. The problem of contingency, as I see it, is essentially a semantical problem. To solve it, the Leibnizian needs to provide plausible semantical analyses of the modal statements in question within her framework of possible worlds. Success is measured by getting the truth conditions right. The existence of other plausible analyses that get the truth conditions wrong is beside the point. The problem of skepticism, on the other hand, is an epistemological problem. It isn't enough to show that the proposition, *I know that I am actual*, comes out true on some plausible analysis. Every plausible analysis potentially introduces a different skeptical problem. The Leibnizian, to be successful, must be able to respond to them all.

With these first two responses off the table, the Leibnizian appears to be in a bind. If there were *a priori* grounds for holding that everything is actual, as actualists believe, then skepticism could be defeated; but there aren't. If actuality were relative rather than absolute, as Lewis believes, then knowing that one is actual at one's own world is all there is to know; but it isn't. Has the Leibnizian, by taking actuality to be an absolute property that some things have and other things lack, put knowledge of actuality beyond reach? Perhaps it will help, before answering, to consider a different but related skeptical problem.

VI. Tu Quoque

I know that I am an individual, not a set—no doubt about that. The question is: how do I know? The correct answer, I think, will surprise many realists about sets.³⁸ For purposes of this discussion, I will suppose that sets exist and satisfy the standard axioms for iterative set theory,³⁹ and that sets and individuals are two distinct fundamental ontological kinds of entity that together exhaust all of reality.⁴⁰ Now, I suspect that most realists about sets would accuse anyone who raises the question—how do I know I am not a set?—of being (intentionally) obtuse. Surely, they will say, there are numerous properties that I know I have and that I know no set has. It then follows, by an application of Leibniz's Law, that I know I am not a set. But it is no simple matter to come up with the required discerning properties. I will not challenge our claim to know, for many ordinary properties, whether we have the property. The problem, rather, is with our claim to know that sets do *not* have the property. We know less than we tend to think we know about the properties of sets. Consider the following attempts to argue that I am discernible from any set.

First Try. I am concrete. Sets are abstract, not concrete. Therefore, I am not a set. That gets us nowhere, even if we allow that the abstract/concrete distinction is well understood. The skeptic's question can just be rephrased: how do I know I am concrete and not abstract? Of course, we *do* know that we are concrete; but the question is how. The answer to the rephrased question is no easier to come by than the answer to the original question. Indeed, if one holds that all and

only individuals are concrete and that all and only sets are abstract,⁴¹ then the rephrased question is equivalent to the original.

Second Try. I am spatially located. No set is spatially located. Therefore, I am not a set. The common assumption that sets are not spatially located is nothing but unsupported dogma. Perhaps *pure* sets lack spatial location—although that may depend on what one takes the null set to be—but that does nothing to support the claim that *impure* sets lack spatial location as well. Indeed, if we ever refer to impure sets with our ordinary talk of collections, groups, and so forth, then it is far more natural to suppose that sets are spatially located: they are located where their members are. A baseball team, for example the New York Yankees, is plausibly identified with a set. The question—where is the team now?—does not seem to be deviant in any way. The team is where its members are: in New York, if all the team members are in New York; partly in New York, partly in Boston, if some of the team members are in New York and some are in Boston; and so on. Similarly, it is natural to say that my singleton is located exactly where I am. Knowing that I am spatially located, then, does nothing to rule out my being a singleton. The same goes, *mutatis mutandis*, for knowing that I am temporally located or spatiotemporally located.

Third Try. But I do know that I am not a singleton. I am mereologically complex. Singletons are mereologically simple; they are atoms. Therefore, I am not a singleton. I hold, with Lewis,⁴² that mereology applies to sets: the parts of a set are all and only its non-empty subsets; singletons are mereological atoms. I therefore grant that the argument is sound: I know that I am not a singleton. But consider instead the set whose members are all and only my atomic parts. That set is mereologically complex, and its complexity exactly matches my own.⁴³ Knowledge of my mereological structure, then, does nothing to rule out my being that set.

Fourth Try. I have qualitative properties that no set has. For example: I have a mass of 65 kilograms. No set has a mass of 65 kilograms, or any other mass. Therefore, I am not a set. More unsupported dogma. Why not say instead that a singleton inherits the qualitative properties of its sole member, and, more generally, that a set inherits the qualitative properties, including structural qualitative properties, of the aggregate of its members? More precisely, consider the following qualitative inheritance principles for sets:

- (Q1) Whenever x has a qualitative property, $\{x\}$ also has that property, for any individual or set x .
- (Q2) Whenever x_1, \dots, x_n stand in an n -ary qualitative relation, $\{x_1\}, \dots, \{x_n\}$ also stand in that relation, for any individuals or sets x_1, \dots, x_n .

For all I know, (Q1) and (Q2) give the truth about sets.⁴⁴ But, then, on the plausible assumption that the qualitative properties of composites are wholly determined by the qualitative properties and relations among atomic individuals,⁴⁵ it follows that, for all I know, I am qualitatively indiscernible from the set of my

atomic parts (and, indeed, from infinitely many other sets higher up the iterative hierarchy). Knowledge of my qualitative nature, then, does nothing to rule out my being a set; in particular, nothing to rule out my being a set having a mass of 65 kilograms.

Fifth Try. Even if sets share qualitative properties with individuals, they do not belong to the same kinds. *I am a person, a thinker, an agent. No set is a person, or a thinker, or an agent. Therefore, I am not a set.* But being of the kind person, or thinker, or agent supervenes on the having of qualitative properties and the standing in qualitative relations. Once one grants that, for all one knows, every individual is qualitatively indiscernible from some set, one cannot consistently deny that sets and individuals fall under the same kinds. For all I know, the set of my atomic parts is a person that thinks and acts and wonders whether it is a set. Knowledge that I am a person or a thinker or an agent, then, does nothing to rule out my being a set.

Sixth Try. Individuals can be distinguished from sets by their *modal* properties. *I could exist without some of my parts. No set could exist without some of its parts. Therefore, I am not a set.* Here, again, the philosophers' dogma about sets—that sets have their members essentially—clashes with ordinary applications of sets. After all, a team can lose a member without thereby ceasing to exist. But even if one grants the two premises of the argument, the conclusion doesn't follow by Leibniz's Law. Not, in any case, for a counterpart theorist. There is overwhelming evidence that ordinary attributions of *de re* modality are context-dependent. This context-dependence, I would argue, is best explained by holding that different counterpart relations are evoked in different contexts. Which counterpart relation is evoked in a context determines which modal property is expressed by a given modal predicate in that context. Now, talk of persons ordinarily evokes a counterpart relation—the person-counterpart relation—according to which not all parts are essential; talk of sets ordinarily evokes a different counterpart relation—the set-counterpart relation—according to which all parts are essential. But then the modal property attributed in the first premise—having a person-counterpart lacking (counterparts of) some of my parts—need not be the modal property that is denied in the second—having a set-counterpart lacking (counterparts of) some of my parts. The application of Leibniz's Law is spurious.⁴⁶

Six tries, six failures. At this point, I hope the problem of skepticism about one's individuality is looking oddly analogous to the problem of skepticism about one's actuality. In both cases, the problem is that, for all we know, there are thinkers qualitatively indiscernible from us who are deceived about their ontological status: in the one case, merely possible thinkers deceived about their actuality; in the other case, thinkers that are sets (!) deceived about their individuality. Thus, when a realist about sets claims that the problem of skepticism refutes Leibnizian realism, the Leibnizian can respond: *tu quoque!* This response is especially powerful, *ad hominem*, against Lewis. For example, with respect to whether sets are located in space and time, Lewis writes:

I don't say the classes are in space and time. I don't say they aren't. I say we're in the sad fix that we haven't a clue whether they are or whether they aren't. We go much too fast from not knowing whether they are to thinking we know they are not, just as the conjurer's dupes go too fast from not seeing the stooge's head to thinking they see that the stooge is headless.⁴⁷

And, directly after this passage, he affirms our ignorance as to whether sets have qualitative properties. Sets are mysterious, according to Lewis, and we know much less about them than we often take ourselves to know. He would have to conclude, at least if only qualitative properties are being considered, that we have no way to rule out that we ourselves are sets.

I suspect many realists about sets will still accuse me (and Lewis) of being obtuse. Of course, they will say, if one has to somehow *discover* the properties of sets, one will not succeed; there is no faculty of intuition, analogous to perception, by which we can "see" whether sets are spatially located, or massive, or what have you. The properties of sets are *stipulated*, not *discovered*. In particular, it is stipulated that sets have only the properties they are required to have to satisfy the standard axioms of (impure) set theory.⁴⁸ It follows from the stipulation that sets share no qualitative properties with us. End of skeptical worries.

I am sympathetic with the stipulational approach. But it merely shifts the skeptical problem rather than eliminating it. Just where the bulge in the carpet reappears depends on one's underlying ontological views. If one's ontology is sparse, then stipulation is *risky*. I have supposed that there are some entities that jointly satisfy the axioms of impure set theory; on a sparse ontology, no other entities jointly satisfy the axioms. To stipulate anything further about the nature of these entities, whether positive or negative, risks getting it wrong: only one such stipulation gets it right. What if the stipulation that gets it right is the one that attributes the qualitative inheritance principles, (Q1) and (Q2), to sets? We have shifted the uncertainty, but not done away with it. Given the proposed stipulation, I now know that, *if sets exist*, they have no qualitative properties. Thus, I now know that I am not a set, but only at the cost of no longer knowing whether sets exist. Realism about sets has been undermined.

If instead one's ontology is expansive, then stipulations are *fairly safe*. The stipulations must meet minimal standards of logical consistency (and, I think, somewhat more), but we can be fairly sure that there exist entities corresponding to our stipulations. Suppose it is stipulated that sets have no qualitative properties. Then I can be (fairly) sure that sets, so stipulated, exist, and that I am not one of them. I know that I am an individual and not a set. But now consider an alternative stipulation according to which the entities stipulated—call them "schmets"—satisfy the axioms *and* the inheritance principles, (Q1) and (Q2). This stipulation, it seems to me, is internally consistent. If one's ontology is sufficiently expansive, then there are entities satisfying the alternative stipulation: schmets exist. I now ask: how do I know that I am an individual and not a schmet? Skepticism is back.

VII. Indexicality and the Concepts of Individual and Set

But, of course, it is absurd for me to wonder whether or not I am a set. I know I am not a set as soon as I understand the concept of set. I think there is only one way that could be: the concept of set is an indexical concept. Ditto for the concept of individual. That I am an individual is built into the concept of individual. That sets and individuals belong to distinct ontological kinds, and thereby that I am not a set, is built into the concept of set. This indexicality, and this alone, can explain how I know that I am not a set.

Before turning to the specific analyses, it will be useful first to introduce a distinction, familiar under various terminological guises, between *concepts* and *properties*.⁴⁹ To illustrate, consider the timeworn example: water. The *concept* that is associated with the predicate 'is water' is something like: being the substance of my acquaintance which descends from clouds in rain, which forms rivers, lakes, seas, etc., and which is used for drinking, cooking, bathing, etc.⁵⁰ This concept is what I grasp in virtue of understanding the predicate 'is water', what would most naturally be identified with its meaning. The *property* designated by a use of the predicate 'is water' is determined jointly by the associated concept and the context of use. (A *property* for a realist about possible worlds can be identified with the class of its actual and possible instances.) When I use the predicate 'is water', the property designated is something like: being composed of molecules of H₂O. Now, the concept expressed by 'is water' is an *indexical* concept: the property it designates on a given use depends on the context of use. For example, Twin Earthlings have the same concept of water that we Earthlings do, but when they use the predicate 'is water'—so the oft-told story goes—it designates the property of being composed of XYZ. Indexical concepts can be taken to be functions (perhaps partial) from contexts to properties. However, since in this paper the only relevant feature of context is the thinking subject (or speaker), I will simplify and take indexical concepts to be functions (perhaps partial) from subjects to properties.

Indexicality is a kind of relativity: when an indexical concept is associated with a predicate, which property (if any) is designated by the predicate on a given use is relative to the subject using the predicate. Another kind of relativity has to do with the nature of the property designated: the designated property is itself a relative property, a property derived from an underlying relation. These two kinds of relativity are independent of one another. A predicate associated with an indexical concept can designate, in every context, an absolute property; the predicate 'is water' is an example of such. On the other hand, the predicate associated with an indexical concept can designate, in every context, a relative property; the predicate 'is a neighbor' has this dual relativity.

I claim that the concepts of individual and set are, in this respect, like the concept of water, not the concept of neighbor: although the concepts are indexical, the properties designated are absolute. But the concepts of individual and set are in other respects quite unlike ordinary indexical concepts. Start with

the concept of individual. I distinguish three independent components. First, there is the standard *mathematical* characterization in terms of the membership relation: x is an *individual* if and only if x is memberless and distinct from the null set. Typically, this (or something equivalent) is taken to be all there is to being an individual. But, although it provides a necessary and sufficient condition for being an individual, it does not exhaust the concept. There is also an *ontological* component: anything ontologically like an individual—anything belonging to the same fundamental ontological kind as an individual—is itself an individual. For it is part of the concept of individual that the individuals constitute a fundamental ontological kind, that *being an individual* is a categorial property; and categorial properties, I assume, are absolute. Finally, there is the crucial *indexical* component: I am an individual. This provides an independent sufficient condition: x is an individual if x is identical with me. Putting the ontological and the indexical components together, we have the stronger sufficient condition: x is an individual if x is ontologically like me.⁵¹ These three components, I claim, are all analytic: no one could be said to understand the concept of individual if they failed to grasp any of the three.⁵²

The concept of set can similarly be divided into three components. *Mathematical*: x is a *set* if and only if x has members or is identical with the null set.⁵³ *Ontological*: anything ontologically like a set is a set. *Indexical*: sets and individuals are distinct. Now, if asked how I know I am an individual and not a set, I can answer with the greatest of ease. That I am an individual is built into the concept of individual. That I am not a set follows from my being an individual and what is built into the concept of set. These answers, which depend only on the indexical components of the concepts, are trivial and analytic, just as they should be. Not only is skepticism about individuality defeated; it is defeated in a way that explains why such skepticism strikes us as absurd. No dissertation on the metaphysical nature of individuals or sets is needed, or relevant.⁵⁴

The mathematical components of the analyses of set and individual (together with the axioms of set theory) provide me with *a priori* knowledge *de dicto* of the iterative hierarchy: the individuals all occupy the bottom level; the sets appear successively at levels higher up. But that's not all. The mathematical and indexical components, when combined, provide me with substantive *a priori* knowledge *de se*, knowledge of where in the hierarchy I am located: I know that I am at the bottom. No amount of knowledge *de dicto* could provide me with this knowledge *de se*: one cannot pull knowledge *de se* out of a purely *de dicto* hat.⁵⁵ The indexicality of the concepts is crucial; it provides me with a *perspective* on the hierarchy. I am not, as it were, outside the hierarchy looking in, wondering where I am. The hierarchy is built on top of me; I cannot be anywhere but at the bottom. My place in the hierarchy is in part constitutive of what the hierarchy is.⁵⁶

That there can be substantive knowledge *de se* based solely on the understanding of concepts is a surprising—and, I suspect, controversial—feature of my account. It arises because the concepts of individual and set are indexical

concepts of a special sort. The indexical and non-indexical components of the concepts are not conjoined to form a single necessary and sufficient condition. For example, if to be an individual were to be *both* ontologically like me *and* memberless (and distinct from the null set), then I could not know that I was an individual without *first* knowing that I was memberless (and distinct from the null set). But since instead the indexical and non-indexical components of the concept of individual provide independent, complementary necessary and/or sufficient conditions, then I can *first*, via the indexical component, conclude that I am an individual, and *then*, via the non-indexical component, conclude that I am memberless (and distinct from the null set), that I am located at the bottom of the hierarchy.

Say that an indexical concept is *perspectival* if it meets the following four conditions. First, if the concept picks out a property relative to a subject, then the subject has that property. Second, one and the same (absolute) property is picked out by the concept relative to all subjects for whom it picks out a property. Third, relative to some subjects, no property at all is picked out: the concept is *defective* relative to those subjects. And, fourth, if the concept is not defective relative to a thinking subject that grasps the concept, the subject knows *a priori* it is not defective. The concept of individual, I claim, is a perspectival concept. Relative to me, and any subject ontologically like me, it picks out an absolute property had by all the memberless entities (except for the null set). Thus it meets the first two conditions. Relative to a set as subject, it is defective and picks out no property at all.⁵⁷ Thus it meets the third condition. Finally, I know the concept is not defective for me simply in virtue of grasping the concept. (How? More on this in section IX.) Thus it meets the fourth condition.

When a concept is perspectival, we have indexicality without the usual variability. Perhaps that is why it is easy to miss the indexical component of these concepts. But the indexicality nonetheless plays a crucial role: it provides a perspective on reality, and the conceptual knowledge *de se* that goes with it. Call the view *perspectivalism* that holds that perspectival concepts are needed to give a complete account of reality. They are needed because not all perspectives on reality are equally valid: mine is; yours is, if you are ontologically like me; but yours is not if you are ontologically alien—a set, or a merely possible being.⁵⁸

I will return to perspectivalism after considering the concept of actuality in the next section. But, first, there is an urgent matter to attend to.⁵⁹ Perspectival concepts, if abundant, threaten to make knowledge *de se* too easy, even knowledge of contingent matters. Suppose I have entered a lottery. The winning ticket has just been drawn and, unbeknownst to me, I am the winner. How can I find this out? Easy. Concoct a perspectival concept whose non-indexical component is: something satisfies the concept if and only if it won the lottery in question. Now, reason as follows. By the indexical component that is part of any perspectival concept, I know that I satisfy the concept. Then, by the non-indexical component, I conclude that I won the lottery. Good news! And I never had to leave my armchair to get it.

I respond by denying that there are such concocted perspectival concepts. There are only as many perspectival concepts as there are genuine ontological perspectives, perspectives built into the nature of reality. Genuine ontological perspectives can't be donned and doffed at will, like an old suit of clothes, any more than objects can be willed in and out of existence. Granted, there is an algebra of concepts that allows concepts to be introduced by the arbitrary combination of conditions, but only when those conditions are individually necessary and *jointly* sufficient. Thus, I could concoct a concept that is satisfied by anything that is identical with me *and* won the lottery. But that concept does not provide a path to easy knowledge.

As best I can tell, the only perspectival concepts are those that correspond to *first person ontological kinds*: *individual* for the realist about sets, *particular* for the realist about universals, *actual* for the Leibnizian realist, *present* for the A-theorist about time. Such concepts provide us with ontological orientation, with genuine knowledge *de se*. They are a path to easy knowledge, all right, but only in cases where the knowledge should be easy: knowledge of what fundamental ontological kind or kinds I belong to.

VIII. Indexicality and the Concept of Actuality

Our way is now clear to return to Leibnizian realism and the problem of skepticism about actuality. The solution I propose will hardly come as a surprise. The *concept* of actuality, like the concept of individuality, is an indexical concept; that explains how I know—and how I know trivially—that I am actual. The *property* of actuality—the property designated by *my* use of the predicate 'is actual'—is nonetheless an absolute property that holds of everything ontologically like me, without regard to the holding of any external or spatiotemporal relations. Again, as with the contingency of actuality, the Leibnizian can have her cake and eat it.⁶⁰

Of course, the solution requires, in both the mathematical and the modal cases, that it is meaningful to speak of things differing in ontological status, or belonging to distinct ontological kinds; and it requires that the ontological status of a thing, or the ontological kind to which it belongs, is a matter of how it is in itself, not how it is related to other things.⁶¹ But this commitment is shared by all ontological pluralists. Only a strict nominalist, one who accepted only "concrete particulars," could accuse the Leibnizian of trafficking in obscure notions without herself being subject to a *tu quoque*.

There are, however, at least two ways in which the mathematical and modal cases differ. First, in the case of sets and individuals, there is a well-established, fully developed theory with precise axioms: Zermelo-Frankel set theory with individuals. In the case of the actual and the merely possible, the relevant theory is less developed and more contentious: the theory of Leibnizian realism. Indeed, as discussed in section III, there are competing formulations of Leibnizian

realism: traditional (exactly one world is actual) vs. non-traditional; creation vs. transformation; one-property vs. two-property. The analyses of the concepts of actual and merely possible will vary depending on the formulation of Leibnizian realism that is accepted. Second, sets and individuals can be distinguished from one another structurally, by their standing vis-à-vis the membership relation. The actual and the merely possible, on the other hand, are structurally isolated from one another; they must be distinguished from one another internally, if they are to be distinguished at all. But whether or not they can be distinguished internally depends on which formulation of Leibnizian realism is accepted. If they can't be distinguished internally, then the concept of actuality will be indexical, but not perspectival. More on this to follow.

I turn now to the analysis of the concept of actuality. It will be easiest to suppose we have before us a formulation of the theory of Leibnizian realism, non-indexically presented. Since the creation and transformation versions of Leibnizian realism lead to somewhat different conclusions, I will give them separate treatment. I will combine the creation version with two-property Leibnizian realism, and the transformation version with one-property Leibnizian realism. Other combinations are possible; but I will leave what to say in those cases as an easy exercise for the reader. I list only these directly relevant to the distinction between the actual and the merely possible.

Leibnizian Realism (Two-Property Creation Version): There are two fundamental ontological kinds of entity, the *A*-kind and the *P*-kind. These two kinds are mutually exclusive, and together exhaust all of reality. The *A*-kind is *copied* in the *P*-kind; that is, the *P*-region of logical space contains an exact qualitative duplicate of the *A*-region. The *P*-kind satisfies the principles of plenitude.

On the transformation version, there is less to distinguish the *A*-kind from the *P*-kind: the *A*-kind need not be copied in the *P*-kind; and it is reality as a whole, not the *P*-kind, that is required to be plenitudinous. But the one-property transformation version introduces a different asymmetry:

Leibnizian Realism (One-Property Transformation Version): There is a fundamental ontological kind of entity, the *A*-kind, all and only the members of which share a primitive, non-qualitative property. (There is no *P*-kind; no primitive, non-qualitative property shared by all and only the entities that are not members of the *A*-kind.)

Now, with respect to either version, the analysis of the concept of actuality is straightforward. I present it as a schema to cover both versions at once. As with the concept of individual, there are three components. The indexical and ontological components are just as before; but now the “mathematical” component is replaced with a “modal” component. *Indexical*: *x* is actual if *x* is identical with me. *Ontological*: if *x* is actual, and *y* is ontologically like *x*, then *y* is actual. *Modal*: *x* is *actual* if and only if *x* belongs to the *A*-kind. Thanks again

to the indexical component of the concept, I know, and know trivially, that I am actual.

That explains *how* I know that I am actual; but it doesn't tell me *what* I know. Can the indexical and non-indexical components be combined, as in the case of knowledge that I am an individual, to provide substantive knowledge *de se*, knowledge as to where I am located in logical space? That depends on which version one accepts. Consider first the two-property creation version of Leibnizian realism. As formulated above, there are no constraints on the extent of actuality; the theory is compatible with exactly one world being actualized, or every world being actualized, or anything in between. If exactly one world is actualized, then we have substantive knowledge *de se* based solely on our understanding of the concepts. Logical space then divides into two regions—the *A*-region and the *P*-region—that are structurally distinguishable: the *A*-region is unified, and contains a single world; the *P*-region is disunified, and contains many, many worlds. We know we are located in the *A*-region. This knowledge *de se* is analogous to the knowledge we had in the case of the iterative hierarchy, knowledge that we are located at the bottom. Thus, for the traditional Leibnizian, one who adds to the above formulation that exactly one world belongs to the *A*-kind, the concept of actuality is perspectival.

But now suppose instead that every world is actualized. In that case, the two regions of logical space are mirror images of one another—both regions satisfy the principles of plenitude—and we have no grounds for locating ourselves on one side rather than the other. Our understanding of the concept of actuality does not provide us with a *perspective* on logical space, with any substantive knowledge *de se*. Thus, for the non-traditional Leibnizian who doesn't rule out universal actualization, the concept of actuality is not guaranteed to be perspectival.

That could be remedied by giving up the possibility of universal actualization. Certainly, it is ordinarily supposed that the realm of the actual is dwarfed in size by the realm of the possible. We could add to the creation version of Leibnizian realism the thesis that the *A*-region is smaller than the *P*-region, measuring the size of a region by the number of worlds it contains.⁶² That addition still allows more than one world to be actualized, and so supports the possibility of island universes. It also guarantees us a perspective on logical space: of the two ontologically distinct regions of logical space, we are located in the smaller region.

I am committed, however, to the possibility of universal actualization. Were I to accept the two-property creation version of Leibnizian realism, I would accept that the concept of actuality is not guaranteed to provide us with a perspective on logical space. It is still the case that we know in a trivial analytic way that we are actual: the indexical component is enough to secure that. But in this case the concept of actuality, unlike the concept of individuality, is not a perspectival concept. Relative to a merely possible subject, the predicate 'is actual' designates the (absolute) property of belonging to the *P*-kind. When she thinks to herself,

“I am actual,” what she thinks is true: she is nowise deceived. The concept of actuality is not defective for her any more than it is for us.

Now consider the one-property transformation version of Leibnizian realism, the version I recommend. Here the concept of actuality is a perspectival concept as long as not every world is actual. A special property has been conferred on the actual entities that make them different in kind from the merely possible entities, and that is enough to provide us with a perspective on logical space, and genuine knowledge *de se*. In knowing that I am actual, I know that I am located in that ontologically distinct region of logical space, composed of entire worlds, throughout which everything shares a genuine property. However, when a merely possible person thinks to herself, “I am actual,” she is deceived. The concept of actuality is defective for her, because the entities ontologically like her do not share a genuine property, and so do not belong to the *A*-kind. No property is designated by her use of ‘is actual’.

Finally, what about the case of universal actualization, which, on the transformation version, amounts to every world being actual? In this case, there is only one fundamental ontological kind, and knowing that I belong to that kind affords no genuine knowledge *de se*. As with the two-property creation version, the concept of actuality fails to be perspectival on the supposition that every world is actualized.

IX. Epistemic Chauvinism

Time to face the music. I have claimed that, if the concept of actuality is indexical and the associated property is absolute, I can know trivially that I have the absolute property; I can know that I am actual. But I have not yet diagnosed where the skeptical argument from section V goes wrong. There are two cases to consider. If the concept of actuality is indexical without being perspectival, the problem is easy to locate. Line (3) of the argument—“None of my evidence rules out the possibility that I am merely possible rather than actual”—is correct; my merely possible epistemic counterparts represent epistemic possibilities for me, and, by definition, they have the same evidence as I do. But the inference from (3) to the conclusion (4)—“I do not know that I am actual”—fails. For (4), at least on its most natural interpretation, is equivalent to: “I do not know that I have the property designated by my use of ‘actual’” (with the property description having narrow scope). And so interpreted, (4) is false. My epistemic counterparts all have the property designated by *their* use of ‘actual’, which is just to say that there is no epistemic possibility according to which the property designated by my use of ‘actual’ fails to apply to me. It is exactly analogous to how I can know that I am here, even though ‘here’ may have different denotations relative to me and my epistemic counterparts, actual or merely possible.

If the concept of actuality is perspectival, however, as I believe, then the above diagnosis does not apply. For then I have epistemic counterparts for whom

the concept of actuality is defective, and fails to designate any property. When they think to themselves “I am actual,” they fail to express any proposition with those words; they are deceived in thinking they know they are actual. If these epistemic counterparts are genuine possibilities for me, then for all I know I am in their predicament. For all I know, the concept of actuality is defective for me, in which case, *I* am deceived in thinking *I* know *I* am actual. The skeptical argument has not been defeated.

It is tempting to respond: “Who cares what my epistemic counterparts think; they’re merely possible!” I think this is the right response for the case at hand; but it comes too quick at this stage of the argument. In *other* cases, the predicament of my epistemic counterparts tells me what I am in a position to know. If I have an epistemic counterpart that lacks a property, my claim to know that I have the property is thereby undermined. For example, I hold that because I have epistemic counterparts that are brains in a vat, I do not know (in the strictest sense) that I am not a brain in a vat. I accept the conclusion of the skeptical argument in this case, at least in the confines of the philosophy room. I need, then, to explain why the case of actuality is special. How can I hold that my brain-in-a-vat epistemic counterparts show that being a brain in a vat is a genuine epistemic possibility for me, whereas my merely possible epistemic counterparts do not show that being merely possible is an epistemic possibility for me? Indeed, since brains in vat are (presumably) merely possible, isn’t this on its face incoherent?

To untangle this web, I need to return to the idea (mentioned in section IV) that, ordinarily, when we consider a possibility for ourselves, we consider that possibility *as actual*. When I think—“for all I know I am a brain in a vat having experiences qualitatively identical with my actual experiences”—I am considering that brain in a vat as actual. A merely possible brain in a vat *represents* a possibility for me of being an actual brain in a vat. If the genuine epistemic possibilities for me are given by what properties my epistemic counterparts *represent*, not by what properties they *have*, then the problem is immediately solved. Even though my epistemic counterparts are merely possible, being merely possible is not a genuine epistemic possibility for me: the possibilities represented by my epistemic counterparts are all possibilities in which I am actual.

But I dare not rest with this response. The skeptical argument receives its force from the idea that all my experience and evidence is compatible with my being merely possible. That compatibility is established by the existence of merely possible epistemic counterparts. That these counterparts are actual *at their own world*, that they *represent* possibilities in which I am actual, fails to respond to the argument. Absolutely considered, they are merely possible. So, we are back to the question: why don’t my merely possible epistemic counterparts, when considered as merely possible rather than actual, count as genuine epistemic possibilities for me? How can the Leibnizian rule them out?

Perhaps all my merely possible counterparts are *zombies*: they lack conscious experience. More generally, we can add to the analysis of the concept of actuality

that only actual individuals have conscious experience. Then the skeptical problem dissolves. Line (3) of the skeptical argument is false: my having conscious experience rules out my having *any* merely possible epistemic counterparts; and, so, being merely possible is not an epistemic possibility for me. Of course, we still want to say that merely possible people are conscious *at their worlds* so that modal claims about consciousness will come out right. But absolutely speaking, they are zombies.⁶³

This seems to me to be a desperate response. For materialists, of course, it is unintelligible: it violates the supervenience of the mental on the physical, even if the supervenience claim is restricted to worlds appropriately like ours. But dualists, I think, should also find the response unintelligible. Why should a dualist, any more than a materialist, deny that there are merely possible worlds differing from our world in some minute physical feature—perhaps an electron added to or removed from a galaxy lacking consciousness—without differing in the presence of consciousness? Allowing that *some* merely possible worlds that are physically similar to our world are populated with zombies gives no support to the view that *all* merely possible worlds physically similar to our world are populated with zombies. The Leibnizian needs a different response.

Perhaps the skeptical argument, with its emphasis on experience and evidence, is simply not suited to drawing conclusions about *a priori* knowledge. *A priori* knowledge, at least when basic, isn't about having evidence, but about grasping concepts. If two subjects have the same evidence without grasping the same concepts, it is only to be expected that one may have *a priori* knowledge that the other lacks. The inference from (3) to (4) loses its backing. But, for the case at hand, this doesn't help. I have been supposing that my epistemic counterparts have the same concepts of actuality and mere possibility that I do, not just the same experience and evidence. They cannot be ruled out as genuine epistemic possibilities for me on grounds of being conceptually deficient. Yet, the very concepts that we share give rise to knowledge for me and not for them. Wherefore this asymmetry?

The only response possible, I think, is to say that knowledge sometimes depends not only on having the right evidence, the right concepts, the right reasoning, but also on having the right perspective. I have it; my merely possible counterparts do not. Having the right perspective, moreover, is accessible to whoever has it. Knowing that I have the right perspective, I know that the concept of actuality is not defective for me. My merely possible counterparts can't know this, not because they lack evidence, or have different concepts, but just because they are in no position to know it.

Thus, the Leibnizian who holds that knowledge of our actuality is perspectival will be led to a form of *epistemic chauvinism*, at least with respect to *a priori* knowledge. An epistemic chauvinist, as I use the term, holds that her beliefs may constitute knowledge even though another subject, actual or possible, with the same evidence, the same concepts, and the same powers of reasoning holds

beliefs contrary to hers. In that case, this other subject is deceived, even though no rational argument could persuade her to change her view. Disagreement, even disagreement at the end of the day when all the evidence and arguments are in, need not undermine knowledge. I am an unabashed epistemic chauvinist. I claim to know, for example, that the law of non-contradiction holds universally: there is no proposition such that both it and its denial are true. I do not think this knowledge is undermined by the existence of actual or possible dialetheists, even if I grant that a dialetheist may share my concepts (of proposition, negation, and truth), and reason in an internally consistent fashion. I am in a position to know the logical truths; the dialetheist, I therefore conclude, is not. Or consider: I claim to know that *possibilia* exist in spite of the preponderance of benighted philosophers who disagree. It's not that I think there are any non-question-begging arguments that will force them, by the light of reason, to see the error of their ways. The light of reason, I simply conclude, shines on me and not on them. Now, I am not claiming that my perspectival knowledge that I am actual leads to quite the same brand of epistemic chauvinism as the two examples above. I am saying only that, since I am committed to epistemic chauvinism already on other grounds, I do not take the fact that Leibnizian realism leads to epistemic chauvinism to count against it.

A final point to ward off misunderstanding. I am not saying that perspectivalism with respect to actuality explains how we know that we are actual. That knowledge is explained by pointing to the indexical component of the concept of actuality, an explanation available to realists and non-realists alike. I am saying that perspectivalism is the necessary consequence—the fallout, as it were—of taking on the Leibnizian's fundamental *a priori* commitments: that *possibilia* exist and are plenitudinous, that the actual and the possible differ in ontological status, and that I know that I am actual. Perspectivalism with respect to actuality is not an independently supported view that is introduced to explain those commitments. I expect that you, dear reader, probably lack those commitments, and will happily turn my *modus ponens* into a *modus tollens*. And there is nothing, rationally, that I can say to change your mind. (But, still, I can know that you're wrong.)

X. Conclusion

Consider a map located in some part of reality with a point highlighted to show the map's location. For someone viewing the map, the point says: "you are here!" We don't take the highlighting of the point to be part of the depiction of reality: a map located in some other part of reality with a different point highlighted may depict the same reality; a map with no point highlighted need not thereby be incomplete. Now consider a map where the highlighted point has a different interpretation: the highlighted point on the map depicts a point of reality with a special property; perhaps the point of reality is the center of

its world and all objects revolve around it. In this case, the highlighting of the point is part of the depiction of reality: a map with some other point highlighted would be an incorrect depiction; a map with no point highlighted would be incomplete. Now combine these two sorts of maps. Consider a map whose highlighted point plays both roles simultaneously. It says to the viewer of the map: “you are here, at this ontologically special point.” The map’s correctness as a depiction of reality depends both on where the map is located and on which point is highlighted. A map that highlighted a different point would be an incorrect depiction of reality by misidentifying the ontologically special point of reality; a map that was located at another point of reality would be an incorrect depiction of reality by misidentifying the ontologically special perspective; a map with no point highlighted would be twice-over incomplete, first, for leaving out the ontologically special point of reality, and, second, for leaving out the ontologically special perspective. Perspectives, in addition to objects with their properties and relations, are needed to provide a complete account of reality. This third sort of map, of course, is analogous to the perspectival concepts that, I have argued, the Leibnizian should endorse, except that instead of a highlighted *point*, there is a highlighted *region* of reality: a region containing all and only the members of a fundamental, first-person ontological kind.

That it should take perspectival maps, or perspectival concepts, to provide a complete description of reality may seem strange: how different it is from what we have been taught! But I think it is strange because it is unfamiliar, not because it is incoherent. If I am right that any philosopher who divides reality into two (or more) fundamental ontological kinds—actual/merely possible, individual/set, particular/universal—and who claims to know which kind is ours must accept a modest perspectivalism, it is time to begin making the strange familiar. It will take some getting used to.⁶⁴

Notes

1. For precise definitions of unification and isolation, see Bricker (1996). I argue that one needs to allow not only spatiotemporal relations, but any and all external relations, to serve as unifying relations for worlds.
2. In Bricker (2001) I argue that the claim that there are island universes—disconnected regions of actuality—is best understood (by a realist) as the claim that more than one world is actual rather than the claim that the one actual world has disconnected regions; but the issue is largely terminological. It may grate on the ears at first to hear ‘*an* actual world’ instead of ‘*the* actual world’, but you’ll get used to it. When I want to refer to the unique world we are part of, I will use ‘*our* world’.
3. A.k.a. “modal realism.” But ‘modal realism’ is sometimes used broadly to include any view that accepts a plurality of concrete worlds, sometimes narrowly to include only views that accept specific Lewisian theses having to do with plenitude or

isolation; I think it best to avoid it. Lewis presents and defends his realism about possible worlds in Lewis (1986).

4. Lewis considers the objection that he is committed to holding that all worlds are actual in Lewis (1986, 97–101). He concedes that “if the other worlds would be just parts of actuality, modal realism is kaput.” Lewis (1986: 112). But his defense assumes that the objector holds that ‘actual’ is a *blanket* term (it is analytic that everything is actual), not, as I would urge, that ‘actual’ is a *categorial* term (it is analytic that *actualia* comprise a fundamental ontological category).
5. I use ‘Leibnizian’ primarily for marketing purposes. It seems plausible to me that Leibniz’s account of possible worlds and actuality, when stripped of his theology—that possible worlds are ideas in the mind of God, that our world derives its actuality from a free choice of God—has as remainder what I call Leibnizian realism. But this comes with the usual disclaimers to appease the historians. If one adds to Leibnizian realism the thesis that the property of actuality is unanalyzable, one gets what Adams calls the *simple property theory of actuality*. See Adams (1974).
6. Lewis (1986: 93). See also Adam’s dilemma in Adams (1974: 201-2).
7. Lewis had presented versions of the arguments before, one in Lewis (1979), the other in Lewis (1970), as had Adams in Adams (1974).
8. Fifteen years later, when John Divers published his extensive survey of approaches to possible worlds, Divers (2002), Leibnizian realism as an alternative to Lewisian realism received nary a word.
9. See Lewis (1991). Note, however, that on a version of the structuralist approach that does not include the postulate that no individual is a set, the answer to the question “how do you know you are an individual and not a set?” is: “I *don’t* know.”
10. Adams (1974), Stalnaker (1976), Plantinga (1976), Armstrong (1989).
11. In Bricker (2001) I suggested the *tu quoque*, but I did not defend it there, or provide a positive solution to the skeptical problem. This is not the first time that Lewis’s disparate treatment of worlds and of sets has lead to a charge of *tu quoque*; see van Inwagen (1986: 207-10).
12. See, for example, Parsons (1980), Routley (1980).
13. As the Meinongians might say: Sosein is independent from Sein. But I would substitute actual/merely possible for Sein/Nichtsein.
14. As follows: each admissible interpretation of ‘thinking about’ relates me (at the time in question) to a single possible gold dodecahedron; the sentence, ‘there is one thing that I was thinking about’, is then true in all admissible interpretations, or *super-true*; and, in ordinary contexts, we count what is super-true as true. See Lewis (1993).
15. I have no objection to abstract substitutes for impossible objects: sets of incompatible properties, or whatever. Such substitutes may even play a role in providing a semantics for intentional attributions. And I have no objection to non-classical logics when used to model psychological or semantic phenomena. But only classical logic delineates the ultimate nature of what there is.
16. For Lewis’s account of plenitude, which is based primarily on a Humean Principle of Recombination, see Lewis (1986: 86-92). But principles of recombination are only part of the story; see Bricker (1991).

17. If the “realm of *possibilia*” is the “realm of thought,” are *possibilia* somehow mind-dependent? There is no dependence on *individual* minds, nor any dependence on the *human* mind. But if asked whether *possibilia* are independent of mind *in general*, I can only respond with Frege: “To answer that would be as much as to judge without judging, or to wash the fur without wetting it.” (Frege 1884/1953: 36). The interdependence between thought and the intentional objects of thought is conceptual.
18. Or, more strictly, iff they are related by “analogical spatiotemporal relations.” See Lewis (1986: 69-76). For an alternative analysis of the worldmate relation, see Bricker (1996).
19. As we shall see in section VII, taking the *property* of actuality to be primitive is not the same as taking the *concept* of actuality to be primitive.
20. Lewis makes use of this distinction between being actual and being actualized in his presentation of ersatzist views; see Lewis (1986: 136-142).
21. As it is in Bricker (2001: 49).
22. In Bricker (2001: 46) I claim that some arguments for the possibility of island universes naturally carry over to the possibility of universal actualization. But since the possibility of universal actualization is more controversial than the possibility of island universes, I will consider below Leibnizian realism both with it and without it.
23. Which version one plumps for also affects the interpretation of recombination principles such as: anything can co-exist with anything else. On the creation version, this must be understood, as Lewis does, in terms of duplicates. On the transformation version, this is made literally true by considering the possibility of universal actualization. (The flip side, that anything can fail to co-exist with anything else, must still be interpreted in terms of duplicates.)
24. See Bricker (1996).
25. I have wavered somewhat over the years as to which version of realism I prefer. In Bricker (2001: 30), I reported a preference for the creation version; I have now switched sides, I hope for good.
26. On the difference between conceptions of properties as abundant and conceptions of properties as sparse, see Lewis (1986, 59-69).
27. Compare Lewis’s presentation of “pictorial ersatzism”: “There is a special ingredient of the concrete world—*vim*, I shall call it—which is entirely absent from all the ersatz worlds and their parts.” Lewis (1986, 172-3).
28. The *cognoscenti* are aware that ‘actual’ and its cognates are ambiguous in modal contexts between rigidified and non-rigidified readings. (Ditto for ‘merely possible’.) The rule to follow here is: disambiguate in such a way that what I say comes out true! Generally, in sentences expressing the contingency of actuality, predications of ‘actual’ should be taken to be non-rigid. But, for example, the first ‘actual’ in ‘possibly, some actual world is not actual’ must be taken to be rigid. On the need for two readings, see Lewis (1986: 94).
29. What follows is more or less how Lewis presents the argument in Postscript B to Lewis (1979). See Lewis (1983: 157-8).
30. Lewis (1983: 157-8)
31. This presupposes what Lewis calls the “simple account” of modal operators. See Lewis (1986: 9-10).

32. More generally: *individual x is actual* is true at *v* if and only if some counterpart of *x* is a part of *v*. I here ignore abstract individuals (if any there be) that one may want to count as “actual by courtesy” so as to include them in the domain of our actualist quantifiers. See Lewis (1986: 95-96).
33. See Bricker (2001: 40-1)
34. In Lewis (1970), the conclusion of the argument is disjunctive: “Either we know in some utterly mysterious way that we are actual; or we do not know it at all.” (p. 186) This is a rhetorical flourish: Lewis certainly rejected the first disjunct, and expected the reader to apply disjunctive syllogism. Whether Lewis would have classified the solution I give below as “utterly mysterious” I am not sure.
35. See Parsons (1980: 217-219).
36. In section VIII, I give an account of ‘actual’ according to which we know *a priori* that we are actual simply in virtue of understanding the concept of actuality. Familiar skepticisms cannot be defeated in this way, though not for lack of trying.
37. For a contextualist account of knowledge along these lines, see Lewis (1996).
38. Similarly, I would ask the realist about universals: how do you know you are a particular, and not a universal? Since the dialectic is relevantly similar to the case of sets, I will here discuss only the latter.
39. That is, Zermelo-Fraenkel set theory with Choice (ZFC) and extensionality adapted to allow for individuals. What I call “individuals” are sometimes called “urelements,” or “atoms.”
40. Two kinds exhaust reality if every part of reality belongs to one or the other *or is a fusion* of things belonging to one or the other. Note that saying that the two kinds are distinct rules out Quine’s set theory according to which an individual is its own singleton. Note also that, for Lewis, the fundamental ontological distinction is between individuals and *classes*: proper classes are not sets, and the null set, by stipulation, is an individual, not a class. See, Lewis (1991). But, since what I have to say can be said equally well within the framework of sets or of classes, I will simply assume in what follows that there are no proper classes, or other “set-like” entities.
41. As Lewis does, except that he would say ‘class’ where I say ‘set’. See Lewis (1991).
42. Lewis (1991: 3-10).
43. Unless I am composed partly or wholly of atomless gunk. But I, for one, do not think atomless gunk is metaphysically possible. Be that as it may, all I need for the above argument is that *we do not know* that we are partly or wholly composed of atomless gunk, which I think is a safe assumption. On gunk, see Lewis (1991: 20-1).
44. Please don’t misunderstand. I am not saying that, for all we know, sets are spatially located or have mass in some extended Pickwickian sense; we could just stipulate that. I am saying that, for all we know, sets have spatial location and have mass *in exactly the same sense* that we do.
45. Alternatively, if one accepts gunk or emergent properties and relations, one can generalize (Q1) and (Q2) by switching to plural variables. Thus, (Q1) becomes: whenever *X* has a qualitative property, $\{x: x \text{ is one of the } X\text{'s}\}$ also has that property, for any individuals or sets *X*. And (Q2) can be similarly generalized.
46. Lewis first used multiple counterpart relations to provide for “contingent identity” in Lewis (1971). He defends the context dependence of *de re* modal attributions in Lewis (1986: 248-263).

47. Lewis (1991: 33).
48. Perhaps incorporating the mereological theses, à la Lewis, with the singleton relation taken as primitive, rather than the membership relation. And perhaps with the ontological axiom that individuals and sets belong to disjoint ontological kinds.
49. In the framework of Kaplan (1989), it is the distinction between character and content applied to monadic predicates. See also the two-dimensional semantical frameworks in Stalnaker (1978), Chalmers (1996), and Jackson (1998).
50. Taken almost verbatim from *Webster's New International Dictionary*, except that I add "of my acquaintance" to allow for the off chance that a different substance might meet these conditions elsewhere in the universe, and I substitute 'substance' for 'liquid' so that I can say, simply, that whatever is composed of H_2O is water.
51. If everything belongs to exactly one fundamental ontological category, then one also has: anything ontologically unlike an individual is not an individual. In this case, the ontological and indexical components together provide a second necessary and sufficient condition: x is an *individual* if and only if x is ontologically like me. But I will not include this so as to accommodate ontological frameworks that allow fundamental ontological categories to cut across one another, as would be the case if one accepts four fundamental ontological categories: individual, set, actual, merely possible.
52. Well, it may be problematic just how to divide the analyticity between the concepts of individual and of set; all I need is that what I claim to hold *a priori* for individuals, or for sets, follows jointly from the concepts of individual and set (and any related concepts, such as membership). I can allow that the analysis of the separate concepts is somewhat indeterminate.
53. Of course, the concepts of individual and set will be indeterminate to whatever extent the concept of member is indeterminate; they will be loaded (for example, with content from ZFC) to whatever extent the concept of member is loaded. But let that pass.
54. How to respond to the skeptical *argument* will be discussed in section IX.
55. On the irreducibility of knowledge *de se* to knowledge *de dicto*, see Lewis (1979).
56. A personal note. When developing these views in 1996-7, my son Adam, then age 3, asked a question that helped crystallize my thought. We were reading Eric Carle's *The Very Hungry Caterpillar* and I turned to the page showing the caterpillar inside its cocoon. Adam asked: but how did the caterpillar get inside? His puzzlement betrayed a failure to conceive of all possible solutions. The skeptic, I claim, makes essentially the same mistake when asking how I know I am at the bottom of the hierarchy. The answer, in the caterpillar case, is that the caterpillar didn't have to get inside because he built the cocoon around him. The answer to the skeptic is essentially the same, except that the sense of 'built' is conceptual, rather than physical.
57. To see this, suppose for *reductio* that a property were picked out. According to the indexical component, that property would have to be satisfied by a set, the subject; but according to the mathematical component, it can only be satisfied by entities that are memberless (and distinct from the null set). Contradiction. Therefore no property is picked out by the concept of individual relative to a set as subject.

58. Ever since reading Stalnaker (1976) as a graduate student, I have been intrigued by his apparent endorsement of perspectivalism. He asks (in Stalnaker (1984: 43-58), a revision of Stalnaker (1976)) whether, on his version of “moderate realism” about possible worlds “. . . from an objective, absolute standpoint, merely possible people and their surroundings are just as real as we and ours?” He replies: “Only if one identifies the objective or absolute standpoint with a neutral standpoint outside of all possible worlds. But there is no such standpoint. The objective, absolute point of view is the view from within the actual world, and it is part of the concept of actuality that this should be so.” (p. 47). And, indeed, I think the “moderate realist,” (or “magical ersatzer,” as Lewis would say), no less than the Leibnizian realist, has reason to endorse perspectivalism. But later in the paper, Stalnaker endorses “analytic actualism,” writing: “the thesis that the actual world alone is real has content only if ‘the actual world’ means something other than the totality of everything there is, and I do not believe that it does.” (p. 49). I find this puzzling because analytic actualism would seem to make perspectivalism with respect to actuality otiose.
59. Here I am indebted to Ted Sider.
60. I find it somewhat surprising that the idea that a realist about possible worlds could combine indexicality of the *concept* of actuality with absoluteness of the *property* of actuality, which seems so natural to me, has received no discussion in the literature. An exception is Parsons (unpublished). He introduces and rejects what he calls a “hybrid view” that combines an indexical semantics for ‘is actual’ with absolute actuality. But Parsons’ hybrid view introduces separate actuality properties for each world, rather than the one absolute actuality property accepted by the Leibnizian realist. And he does not notice what I think is most interesting and problematic about the approach, namely, that it appears to require what I call perspectivalism.
61. Intuitively, the properties corresponding to fundamental kinds are *intrinsic*. But one must be careful here, because the standard Lewisian account of an intrinsic property—a property is intrinsic just in case it can never differ between two duplicates—only gives the expected results when restricted to the qualitative properties. The property of actuality, for the Leibnizian, fails to be intrinsic on this account, since actual entities have merely possible (qualitative) duplicates. (A similar problem arises with respect to *haecceities*—properties of being identical with a given object.)
62. I hold that it follows from principles of plenitude that there are “too many” possible worlds for them to form a set. See Bricker (1996). The best way to implement this strategy, then, would be to add the thesis: there is a *set* of all and only the *A*-worlds.
63. Forrest (2001: 100-1) suggests that accepting a “zombie hypothesis” according to which all our counterparts lack consciousness may provide the best way for a realist about possible worlds (which Forrest is not) to develop her view. In particular, he writes: “If we accept the zombie hypothesis we no longer need Lewis’s token-reflexive account of actuality. For we could hypothesize that to be actual is to be in a world with consciousness in it.”
64. An earlier version of this paper was presented at Tufts University and at the Eastern APA Meetings in 2004. Thanks to the audiences on those occasions, and especially my APA commentator, John Divers.

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