ORIGINAL RESEARCH

Dualism About Possible Worlds

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Abstract

Dualism about possible worlds says that merely possible worlds aren't concrete objects, but the actual world is concrete. This view seems to be the natural one for ersatzers about merely possible worlds to take; yet one is hard-pressed to find any defenders (or even mention) of it in contemporary modal metaphysics. The main reason is that Dualism struggles with the issue of how merely possible worlds could have been actual (or vice versa). I explain that there are two different Dualist strategies that can be taken to address the problem. Furthermore, one or other of these strategies should be plausible to anyone who accepts both Existentialism—which tells us that the existence of singular propositions depends on what they directly refer to—and Serious Actualism—which tells us that things must exist in order to instantiate properties. Though it has long been ignored, Dualism is a live option.

Monism about possible worlds is orthodoxy—it's widely (if not universally) believed that possible worlds are all of the same kind. Ersatz modal realists identify merely possible worlds with some sort of abstract object—such as propositions, states of affairs, properties, sets of such things, etc. And they tend to be Monists: they think *all* possible worlds are abstract—whether merely possible worlds or the actual world [see, for instance, Plantinga (1974, 45), Fine (1977, 119), Pollock (1984, 57), van Inwagen (1986, 189)]. Even Lewis' (1986) concrete modal realism is a form of Monism—all possible worlds (whether merely possible or actual) are concrete. I find it surprising that such Monism has been essentially universally adopted with little or no critical backlash. Dualism about possible worlds—where merely possible worlds are ersatz and the actual world is concrete—seems like the more natural view.

If there's a general narrative that captures the intellectual development of ersatz modal realists, I should think it goes like this. In the first stage, we think that there is only a single possible world—the actual one, which is some large concrete object that we are a part of. At this stage we find ourselves agreeing with Powers' (1976)

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sentiment that "the whole idea of possible worlds (perhaps laid out in space like raisins in a pudding) seems ludicrous" and Mackie's (1973, 90) claim that "talk of possible worlds…cries out for further analysis. There *are* no possible worlds except the actual one; so what are we up to when we talk about them?" In the second stage, we come to realize that there is a need to posit merely possible worlds, and that by identifying them with abstract objects we avoid positing a plethora of objects 'laid out in space like raisins in a pudding'. In the third stage we become monists—we not only identify merely possible worlds with abstract objects, but we do the same with the actual world. No longer is the actual world something we are literally a part of, it's instead some distant object floating in the realm of the abstract.

Why do we make this move from the second to the third stage? After all, it looks very strange to say that the actual world is abstract. Perhaps Ersatz Monists are right that there is some abstract object—like a maximal true proposition—that gets everything right. But surely the right thing to say is that the proposition 'accurately describes', or 'is made true by', the actual world—not that the abstract object *itself is* the actual world! Intuitively, the actual world is a large concrete object that we are a part of, which we literally inhabit. As Lewis (1973, 86) says, "I cannot believe that I and all my surroundings are a set of sentences",[1] his point being that the Ersatzer who takes the actual world to be a set of sentences fails to preserve the idea that 'the actual world' naturally refers to something like 'I and all my surroundings'. The Ersatz Monist might try to avoid this by avoiding all talk of 'worlds' and only resort to talk of 'actuality' and 'possibility'. But their use of 'actuality' is also counter-intuitive. As van Inwagen (1986, 189) admits "Abstractionists [i.e. Ersatz Monists] apply the words 'actual' and 'nonactual' only to certain abstract objects. That is, they do *not* apply them to concrete objects."[2] And this is an odd practice since we ordinarily attribute actuality to concrete objects—for instance, 'the person mentioned in this book is an actual person'. Ersatz Monism doesn't seem to sit well with our pre-theoretic notion of actuality. Of course this is something we might just learn to live with—as Ersatz Monists do. But do we need to live with it? Why not be a Dualist?

In this paper I begin by presenting two arguments that might seem to tell decisively against Dualism. I then describe two different perspectives—'Migratory' and 'Non-Migratory' forms of Dualism—from which Dualists could respond to the arguments. From either perspective, the Dualist will have to deny *prima facie* plausible principles to avoid the anti-Dualist arguments; but the Dualist can point out that we have independent reason to deny them. These are reasons that stem from the plausibility of two theses: Existentialism, which tells us that the existence of singular propositions depends on what they directly refer to, and Serious Actualism, which

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[1] In context, Lewis says "given that the actual world does not differ in kind from the rest, [the identification of possible worlds with sets of sentences] would lead to the conclusion that our actual world is a set of sentences. Since I cannot believe that I and all my surroundings are a set of sentences (though I have no argument that they are not), I cannot believe that other worlds are sets of sentences either." Of course, I do not endorse the entire argument since Lewis here assumes that "the actual world does not differ in kind from the rest", an assumption I'm here questioning.

[2] In the next section we will see van Inwagen's attempt to "defend" this practice.

tells us that things must exist in order to instantiate properties. Even if I'm right that these give us independent reason to reject the Anti-Dualist arguments, there nevertheless remain costs associated with Dualism. But it's not obvious that these definitively outweigh the appeal of identifying the concrete world with the actual world.

1 Objections to Dualism

As I'll define 'Dualism' for the purposes of this paper, it is the conjunction of these three theses:

(Modalism)   There exists both the actual world and merely possible worlds.[3]

(Ersatzism)   Necessarily, if *x* is a merely possible world, then *x* is not a concrete object

(Concretism)   Necessarily, if *x* is the actual world, then *x* is a concrete object

And we could take 'Monism' to designate the view that Modalism is true, but not both Ersatzism and Concretism. Monists think either that all possible worlds are concrete or that they are all ersatz objects.

To help clarify the kind of Dualist view I intend to discuss here, it may help to distinguish it from the Tractarian tradition, which finds proponents in Cresswell (1972), Skyrms (1981) and Armstrong (1989). A unifying idea in this tradition is that the world is made up, not of things or individuals, but of *states of affairs* (or facts). This makes states of affairs seem rather concrete. Likewise, by identifying the actual world with a big state of affairs—such as the state of affairs that includes all atomic states of affairs that obtain as conjuncts (see Armstrong 1989, 45)—the actual world would also seem to be a concrete object. So the Tractarian tradition might seem friendly to the Dualist's Concretism thesis. But I am interested in Dualist views that are not Tractarian in nature. There are two reasons for this. The first is that it's unintuitive to think of the world as being made up of states of affairs rather than things. As Jason Turner (2016, 1) says in his monograph on Tractarianism:

> we humans seem doomed to think about the world in an object-centered way. For some reason, we can't help but think of the world as built out of *things*. Some see in this a deep insight into the world itself, whereas others see only a deep insight into human psychology. But wherever the deepness lies, deep it is.

I do not wish to fight such a deep-seated inclination. I will instead hold that the actual world is a concrete whole, which has things—such as planets, people, protons, etc.—as mereological parts. States of affairs, on the other hand, aren't

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[3] I intend this to rule out, among other things, Meinongianism about merely possible worlds. In general, I will assume that, necessarily, there are no things that don't exist (likewise, there are no non-existent worlds).

mereologically related to the individuals they involve. This is because states of affairs violate transitivity (Frege 1980, 79) and supplementation principles (Bynoe 2010), furthermore, mereological wholes aren't individuated finely enough to be identified with states of affairs (Armstrong 1989, 41). (Since I will assume that the world isn't made up of states of affairs, I will also assume that states of affairs are abstract objects, much like propositions.) A second reason that I will stray from the Tractarian tradition is that Tractarians tend to be fictionalists about possible worlds (such as Armstrong 1989, 46; Armstrong also reveals there that Skyrms is a fictionalist). And it's easy to see why there should be such a trend: if states of affairs are concrete, and all possible worlds (including merely possible worlds) are states of affairs, then if merely possible worlds do indeed exist, they are also concrete. But, unlike David Lewis, most people are unwilling to believe they are concrete. So there is strong pressure for Tractarians to be fictionalists. But I should like to avoid fictionalism and its attendant problems.[4]

So I find that a Dualist view does a better job than Ersatz Monism at preserving our pretheoretic notion of 'actuality', and, unlike Tractarians, I will take the actual world to be a concrete whole that is mereologically related to its parts. But if Dualism has the appeal I claim for it, why does it have so few (if any) followers? I think Peter van Inwagen has pointed out the principal[5] difficulty for Dualism. He says:

Abstractionists [i.e. Ersatz Monists] apply the words 'actual' and 'nonactual' only to certain abstract objects. That is, they do *not* apply them to concrete objects. If you asked an Abstractionist to defend this practice, he would reply along these lines: "It is reasonably clear what it means to say of a state of affairs, which is an abstract object, that it is 'actual': that it obtains. Possible states of affairs are, or represent, ways things could be and are, therefore, the sort of thing that can fail to 'come off'. In a way analogous to pictures and declarative sentences, they represent things as being arranged in a certain way, and they may represent incorrectly. If they do, we call them 'nonactual'. But what could it mean to say of a concrete object like a horse that it was 'actual'? Horses and other concrete objects do not represent things as being a certain way; they cannot 'fail to come off'—they're just *there*. If we examine the way in which, e.g., 'nonactual horse' has in fact been used, we see that this phrase

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[4] The literature discussing the proposed problems facing modal fictionalism is substantial, but to get a sense of some of the basic issues, see Rosen (1993), Nolan (1997) and Armour-Garb (2015).

[5] Another objection is that Dualism lacks theoretical simplicity since not all possible worlds can be defined in the same way. Of the Dualist views I develop, we will see that the first (Non-Migratory Dualism) does lack such simplicity, but the second (Migratory Dualism) does not. I have also heard the following objection: if we think merely possible worlds are false maximal possible propositions and the actual world is a concrete object, then we also have this other object hanging around—a true maximal possible proposition—which looks like the actual world, but the Dualist wouldn't count it as such. This inelegance counts against Dualism. I think this objection is a double-edged sword—the same sort of problem arises for Ersatz Monism. For even if we did think the actual world is a true maximal possible proposition, we would still have some other thing that 'looks like' the actual world hanging around—namely the concrete world. The inelegance appears either way. (We will see that a different sort of inelegance charge arises for the first version of Dualism. The second form of Dualism, on the other hand, seems to avoid either charge of inelegance.).

almost always means, in the mouths of its habitual employers, 'nonexistent horse'. (We must, of course, except David Lewis from this generalization.) And, indeed, it is difficult to see what else it might mean. But we Abstractionists are Quineans (about existence). In this sense of 'actual', we say that there are not, and could not possibly be, nonactual horses." (1986, 189)

Van Inwagen's basic point is that we need an abstract object to serve as the actual world since only abstract objects can continue to exist while failing to be actual. More precisely, we can formulate the argument like this (taking 'the maximal concrete object' to mean 'the object that has all and only concrete objects as parts'):

Non-Actuality Problem

(1) $\Box\forall x$(if x is the actual world, then $\Diamond$(x exists & x is not actual))
(2) $\Box\forall x$(if x is the maximal concrete object, then $\sim\Diamond$(x exists & x is not actual))
(3)   Therefore, $\Box\forall x$(if x is the actual world, then $\sim$(x is the maximal concrete object))

With respect to (1), van Inwagen explains that states of affairs could fulfill this requirement of being the actual world: for they obtain, but they could exist without obtaining. And, generally speaking, this seems to be a feature we should want of the actual world. After all, there are worlds in which @—where '@' names the actual world—fails to be actual, while still being possible in them. So we would need @ to exist in such worlds without being actual in them.[6] As for (2), van Inwagen points out that it's hard to see what it could be for a concrete object to be 'non-actual' other than for it to be non-existent.[7] The conclusion of the Non-Actuality Problem is a problem for Dualists who take the actual world to be a maximal concrete object. But the argument can be reformulated to attack other Dualist conceptions of what the actual world is.[8]

There is also a second problem which is essentially the flip-side of the Non-Actuality problem: instead of asking how the actual world could be merely possible on the Dualist's conception, we could instead ask how a merely possible world could be actual. We can then formulate an objection like this (note: the phrase 'x is the actual world' should be understood in the *de dicto* sense. That is, it shouldn't be understood as implying that x is identical to @—the thing that actually is the actual world.):

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[6] I present the defense of premise (1) in more depth in Sect. 2.2.

[7] We do, however, say things like: 'that's not an actual horse, it's just a statue'—thus 'non-actual' could, in some contexts, mean 'fake'. But this won't help Dualists, since they want to say that the possible non-actuality of the actual world consists in something other than its being possibly fake. For one thing, the world's being 'fake' is consistent with its being concrete (just as the horse statue is concrete though fake), but the dualist wants to say that a non-actual world is one that fails to be concrete.

[8] For instance, one might say that the term 'the actual world' is actually a plurally referring term that refers to all of the concrete objects. But this conception also falls prey to the basic problem. For it's not possible for those concrete objects to exist while failing to be (jointly) actual—as a merely possible world would need to be.

Actuality Problem

(A) $\Box\forall x$(if x is a merely possible world, then $\Diamond$(x exists & x is the actual world))

(B) $\Box\forall x$(if x is the actual world, then x is concrete)

(C)   Therefore, $\Box\forall x$(if x is a merely possible world, then $\Diamond$(x exists & x is concrete))

(D) $\Box\forall x$(if x is not a concrete object, then $\sim\Diamond$(x exists & x is concrete))

(E)   Therefore, $\Box\forall x$(if x is not a concrete object, then x is not a merely possible world)

Premise (A) is the flip-side of premise (1) of the Non-Actuality Problem. Premise (A) seems very plausible, for what could it be for a merely possible world (i.e. a non-actual world) to be possible than for it to be possibly *actual*?[9] (And, given Serious Actualism, if it were actual, it would also exist.) Premise (B) follows from the Dualist's Concretism thesis. As for premise (D), given the candidates for playing the 'ersatz possible world' role in the literature, (D) seems very plausible. Ersatz possible worlds have been identified with propositions, states of affairs, properties, or other such things. And such objects have been taken not only to be abstract, but *essentially* abstract. (Even Tractarians, who think states of affairs are concrete, nevertheless take them as essentially concrete.)[10]

In the rest of the paper, I will develop two versions of Dualism. They differ according to whether possible worlds can cross the divide between the actual and the merely possible. The first version—'Non-Migratory Dualism'—denies this, whereas the second—'Migratory Dualism'—affirms it. And each version will give a unique way of responding, and motivating their responses, to the above objections.

2 Non-migratory Dualism

2.1 The Actuality Problem

Non-Migratory Dualism tells us that merely possible worlds couldn't be actual and actual worlds couldn't be merely possible. Beginning with the Actuality Problem, the view would deny:

(A) $\Box\forall x$(if x is a merely possible world, then $\Diamond$(x exists & x is the actual world))

But isn't it absurd to deny this? Isn't it obviously true?

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[9] As Robert Adams (quoted in Plantinga 1983, 171) says "we would be left to wonder in what sense the other possible worlds are possible, since they couldn't have been actual".

[10] Though Armstrong is a fictionalist, he does entertain the idea of being an ersatzer. But he only considers identifying ersatz possible worlds with sets rather than states of affairs (see his 1989, 46)—supposedly because he doesn't think states of affairs are possibly not concrete.

The Dualist, however, has independent reason for thinking that (A) is unmotivated. To see why, begin by assuming that merely possible worlds are propositions of some sort (I make this assumption for simplicity, the argument can be extended, *mutatis mutandis*, to other conceptions of ersatz possible worlds). Naturally, then, where a proposition is a world, what it is for it to be actual is for it to be true. Given this, (A) implies:

(A*) □∀*x*(if *x* is a merely possible world, then ◇(*x* is true))

But, on the assumption that merely possible worlds are propositions, why think that (A*) is true? The motivation for it is that it follows from:

(Possible Truth) □∀*x*(if *x* is a possible proposition, then ◇(*x* is true))

And this proposition might seem obviously true. As Plantinga (1983, 16) asks, "if possibility, for a proposition, isn't possible truth, what is it? If a proposition could not have been true, how can it be possible? … It looks initially as if 'possible' just *means* 'possibly true'; what else *is* there for it to mean?"

But there is good reason to deny the Possible Truth principle given these two theses:

Existentialism

□∀*x*∀*y*(if *x* is a proposition that directly refers to *y*, then □(if *x* exists, then *y* exists))

Serious Actualism

□∀*x*(if *x* instantiates a property in possible world *w*, then *x* exists in *w*).

Existentialism tells us, for example, that the proposition <Socrates is wise> can only exist if Socrates exists. This seems plausible for, as Adams (1981, 12) says, "[the direct reference] relation is surely part of what makes the proposition what it is; it's essential to the proposition." (Contrast this with <the father of western philosophy is wise> which doesn't directly refer to Socrates. Even though this proposition also actually picks out Socrates, it's not essentially related to him.) Serious Actualism on the other hand tells us, for example, that if Socrates instantiates <being wise> in *w*, then Socrates exists in *w*. And many accept or defend both Existentialism and Serious Actualism [e.g. Adams (1981), Fine (1985), Turner (2005), Bennett (2005), Stalnaker (2010, 2012) and Speaks (2012)]. Though there are those who deny Existentialism [e.g. Plantinga (1983) and Merricks (2015)] or Serious Actualism [e.g. Salmon (1998)], it is beyond the scope of the paper to defend them here—I shall settle for noting their *prima facie* plausibility and widespread acceptance.

With Existentialism and Serious Actualism in the mix, we can see that <Socrates does not exist> is a counter-example to the Possible Truth principle [as pointed out by, e.g., Adams (1981, 19); Stalnaker (2010, 27); Speaks (2012, 530)]. Since

Socrates isn't a necessary being, it's possible that Socrates does not exist. Nevertheless the proposition <Socrates does not exist> isn't possibly true: Serious Actualism tells us that if it were true, then it would exist, yet Existentialism tells us that if <Socrates does not exist> were to exist, then Socrates would exist. Thus the truth of <Socrates does not exist> isn't possible since we would have the contradiction: Socrates does not exist and Socrates exists.[11]

So we have good reason to deny Possible Truth, but how are we to answer Plantinga's initial question 'if possibility, for a proposition, isn't possible truth, what is it?' Here we can appeal to Robert Stalnaker's work, which I will briefly describe here (though one may consult his (2010, 2012) for further defense). Stalnaker's (2010, 27) answer is:

p is possible if and only if there is a possible world that entails that *p*.

Here entailment is not to be analyzed as '*p* entails *q* if and only if: necessarily, if *p* is true, then *q* is true.' If this analysis were correct, then the possibility of <Socrates does not exist> would require that some possible world entails that <Socrates does not exist> is true—thus there could be no proposition that is both possible and not possibly true. For this reason, Stalnaker takes entailment as a primitive. Thus, even if <Socrates does not exist> isn't possibly true, it's still *possible* in the sense that there's a possible world that entails it. For instance, suppose that there's a possible world in which there are no human beings. Then assuming that Socrates is essentially human (as the Non-Migratory Dualist can plausibly assume),[12] then, such a world entails that Socrates doesn't exist. In other words, that is to say that, necessarily, if there were no human beings, Socrates wouldn't exist.

We've so far seen that there's both independent reason to deny the Possible Truth principle and a coherent way of denying it. The motivation for premise (A) of the anti-Dualist Actuality Problem is subsequently undermined. For just as <Socrates does not exist> is possible without being possibly true, so the Dualist can say that a possible world is possible without being possibly actual/true.[13] To put this in terms of Stalnaker's primitive entailment relation: just as <Socrates does not exist> is entailed by a possible world even though no possible world entails that it's true, so every merely possible world *w* is entailed by a possible world (namely itself), but no

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[11] We might try to avoid this argument by employing ersatz possible individuals. In a world in which Socrates doesn't exist, we could still say that there is some abstract object that represents Socrates—for instance, some individual essence of Socrates (see Plantinga (1974)). We could then treat such an object as the direct referent of the proposition <Socrates does not exist>. The problem with this response is that it doesn't satisfy Existentialism. Existentialism tells us not only that <Socrates does not exist> must directly refer to something, but that it must directly refer to *Socrates* (more precisely: Existentialism tells us that, necessarily, if <Socrates does not exist> exists, then so does Socrates). But since an abstract representation of Socrates isn't itself Socrates, such representations aren't cut out for the job.

[12] Unlike the Migratory Dualist who, we will see, is committed to the claim that Socrates is possibly a non-concrete object.

[13] I have also provided independent reason to believe that there are worlds that are possible that aren't possibly actual in Longenecker (2019).

possible world entails that *w* is actual. So the Non-Migratory Dualist has a plausible avenue of response to the Actuality problem.

2.2 The Non-actuality Problem

Let's turn now to the Non-Actuality Problem, which says that the Dualist has trouble making sense of the idea that the actual world could be a merely possible world. As the argument is formulated in Sect. 1, Non-Migratory Dualism will deny:

(1) $\Box\forall x$(if *x* is the actual world, then $\Diamond$(*x* exists & *x* is not actual))

But can (1) be plausibly denied? I think (1) has two (interrelated) motivations. The first is that it follows from

(S5) $\Box\forall x$(If *x* is possible, then $\Box$(*x* is possible))

And since the actual world is possible (what's actual is possible), it follows from S5 that the actual world would be possible even if some other world were actual—that is, the actual world could be merely possible.

But, again, the Dualist has independent reason to reject S5 if Existentialism and Serious Actualism are true [as pointed out by, e.g., Adams (1981, 31–32); Fitch (1996, 63–65); Bennett (2005, 312–313)]. To see why, consider a possible world *W* in which Socrates doesn't exist. In that world, there is no possible world that entails that Socrates exists. There are, of course, worlds in *W* that imply that there's a great philosopher with a snubbed-nose named "Socrates". But since, as Existentialism tells us, there are no propositions in *W* that directly refer to Socrates, no world there can imply that it's *Socrates himself* that would exist rather than a qualitative duplicate. Thus, since there are no worlds in *W* that entail that Socrates exists, Socrates' existence isn't even possible relative to *W*.[14] So even though Socrates' existence is possible, it isn't *necessarily* possible (*contra* S5). The Dualist has independent reason to deny S5.

But even if S5 is false, there's still a second way to motivate (1): if things had been slightly different, the actual world would still be possible. For instance, suppose that everything about the world were the same as the actual world, except that Socrates has a normal non-snubbed nose (call the resulting world '*W**'). If *W** were actual, surely @ would still be possible—it would still be possible for Socrates to have a snub-nose. Hence it's possible for @ to be a merely possible world. But the Dualist can agree that if W* were actual, a world qualitatively identical to @—where Socrates has a snub-nose—would be possible while denying that @ itself would be possible. And this response isn't ad hoc. For the reason we saw above, the believer in Existentialism and Serious Actualism has good reason to make an exactly parallel

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[14]   This not only follows from Stalnaker's analysis of possibility given above, but even from the principle: necessarily, *p* is possibly true if and only if there's a possible world that entails that *p* is true.

move in the case of Socrates' non-existence: in a world where Socrates doesn't exist, Socrates' existence isn't possible (i.e. no possible world would entail that Socrates exists). Nevertheless, it would still be possible for there to be a person that is a qualitative duplicate of Socrates. Thus, if Socrates didn't exist, though Socrates wouldn't be possible, a qualitative duplicate would be. The Non-Migratory Dualist thinks this point applies to the actual world as well.

2.3 A Formulation

I think the above discussion shows how we can formulate a defensible form of Non-Migratory Dualism. We can begin by defining merely possible worlds:

x is a merely possible world $=_{df}$ x is a false maximal possible proposition

Here we can follow Stalnaker (2012, 49) and analyze maximality in terms of entailment: x is a *maximal* proposition if and only if, for every proposition p, either x entails p or x entails $\sim p$. We can also analyze possibility in terms of entailment: x is a *possible* proposition if and only if x doesn't entail a contradiction.[15] We can also define:

x is the actual world $=_{df}$ x is (i) a mereological sum of all concrete objects and (ii) every merely possible world entails x's non-existence,

x is a possible world $=_{df}$ x is a merely possible world or x is the actual world.

Notice that a true maximal possible proposition doesn't count as a world. This is as it should be: such a proposition wouldn't be the actual world since it's not concrete (nor would it be a merely possible world since it's not false).

We can define truth at a world as:

p is true at merely possible world $w =_{df}$ w entails p

p is true at the actual world $=_{df}$ p is true

All of this gets us a Dualistic picture where what it is to be the actual world (and be true at it) is different from what it is to be a merely possible world.

We can also make the view explicitly non-migratory by adding these two principles:

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[15] Note that 'entailment' shouldn't be understood as 'formal entailment'. For example, the statement "there is something red all over and blue all over" might not formally entail a contradiction, nonetheless it entails (simpliciter) a contradiction. (Perhaps the same also holds for statements like "Socrates is actually formed from sperm *S* and egg *E*, but could have been formed from some other sperm-egg pair".).

Necessarily, if *x* is a merely possible world, it's not possibly actual.

Necessarily, if *x* is the actual world, it's not possibly merely possible.

The Non-Migratory Dualist will want to uphold these since: (a) a merely possible world couldn't be actual since it couldn't be concrete, (b) nor could the actual world be merely possible since it couldn't be a proposition. And we saw that these claims are coherent: just as <Socrates does not exist> is possible, though not possibly true, so we can agree with (a) that merely possible worlds are possible, though not possibly actual; and just as Socrates' existence isn't possible at worlds in which Socrates doesn't exist, so we can agree with (b) that @ isn't possible at any merely possible world.

Those who are sympathetic to Existentialism and Serious Actualism will have reason to be sympathetic to Non-Migratory Dualism. This doesn't mean that the view is free of all costs. Where Ersatz Monism can elegantly define possible worlds and the notions of truth and existence at such worlds, Non-Migratory Dualism resorts to a disjunctive and gerrymandered definition. Also Non-Migratory Dualism posits the existence of a world-bound mereological sum of concrete objects (it doesn't exist at any other world), whereas Ersatz Monism has more flexibility on the matter. (The Dualist can, nevertheless, hold a non-extensional mereology—one in which @ coincides with a non-world-bound concrete object.[16]) Though these are costs, I don't see that they obviously outweigh the benefit of retaining a concrete actual world. Non-Migratory Dualism is a viable alternative to Monism.

3 Migratory Dualism

In any case, the Dualist has options. Unlike Non-Migratory Dualism, Migratory Dualism tells us that merely possible worlds are possibly actual and the actual world is possibly merely possible. Migratory Dualism offers us an alternative way to respond to the Actuality and Non-Actuality problems without giving up the Possible Truth and S5 principles.

I think the best way for the Migratory view to do so is to reject the following premises of the Non-Actuality and Actuality arguments respectively:

(2) $\Box\forall x$(if *x* is the maximal concrete object, then $\sim\Diamond$(*x* exists & *x* is not actual))
(D) $\Box\forall x$(if *x* is not a concrete object, then $\sim\Diamond$(*x* exists & *x* is concrete))

Recall that the motivation for these is that abstract objects seem essentially abstract and concrete objects seem essentially concrete. For instance, if we were to identify

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[16] That is, the Non-Migratory Dualist can hold that there are two objects—each of which have all the same concrete proper parts—that differ in their modal properties: one that is world-bound (namely, @) and one that can exist, and be concrete, even if @ weren't actual. This would parallel material constitution cases—such as a statue and the lump of clay that constitutes it—where two objects have all the same proper parts.

merely possible worlds with propositions, properties, states of affairs, or sets, since such things are abstract, they couldn't be concrete. Yet there's another option that the Migratory Dualist can take that has so far been neglected in the literature: this is to identify merely possible worlds with the non-concreta posited by Williamson (2002, 2013) and Linsky and Zalta (1994). Non-concreta are objects that are not concrete, but *possibly are* concrete. In other words, though non-concrete objects fail to have the typical concrete properties such as size, mass and location, they nevertheless *could* have such properties.

One of Williamson's motivations for positing non-concreta is to block the aforementioned arguments from Existentialism and Serious Actualism to the denial of the Possible Truth and S5 principles presented above. Those arguments only go through on the additional assumption that there are objects that contingently exist. If we instead hold that, say, Socrates *necessarily* exists, then we won't have the violation of Possible Truth: we wouldn't have to say 'the proposition <Socrates does not exist> is both possible but not possibly true', since the proposition isn't even possible in the first place. Nor would we have the aforementioned violation of S5: we wouldn't have to say 'in a possible world *W* in which Socrates doesn't exist, Socrates' existence wouldn't be possible' since *W* wouldn't be a possible world after all. So if we say that contingently existing objects are impossible, we have a way to hold Existentialism and Serious Actualism along with Possible Truth and S5.

The natural response to Williamson et al. is to say "isn't the denial of Socrates' possible non-existence absurd? Surely it's possible for Socrates' parents to have never bore children, in which case Socrates wouldn't exist!" It's in response to this complaint that the existence of non-concreta is relevant. Williamson (2013, 6–9) agrees that there's a world in which Socrates is never born, but he claims that Socrates would still *exist* in such a world—Socrates would just be a non-concrete object. This helps preserve the intuition about Socrates' contingency: when we ordinarily say "Socrates could have not existed," we employ the concrete sense of 'exists'—which quantifies over only concrete objects—rather than the logical sense of 'exists'—which is unrestricted in its quantification.

The basic move Migratory Dualists can now make is to give up on the idea that ersatz possible worlds are of the sort that have been suggested in the literature so far—propositions, states of affairs, properties, sets, etc.—and instead identify them with non-concreta. Just as Socrates is concrete and possibly non-concrete, so @ is concrete and possibly non-concrete. The flip side also holds true: merely possible worlds aren't concrete, but are possibly concrete. To have a fuller picture of the view I have in mind, think of it like this. Begin by considering David Lewis' view on which all possible worlds are concrete objects. Now imagine making all of the possible worlds (except the actual world) into non-concrete objects: remove the mass, location, size, etc. while retaining the identities and mereological relations of the objects.[17] This is essentially the view that I'm suggesting here.

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[17] One might worry that objects that aren't concrete can't enter into mereological relations. But the idea that they can is not a foreign one. In fact Paul (2002, 2006), Koslicki (2008) and Longenecker (2018) suggest that we need the mereological relation to behave in that way to adequately address puzzles of material constitution.

To formulate the view more precisely, we can define possible worlds like this:

x is a possible world $=$ $_{df}$ x is a maximal and unified possibly concrete object.

Since I'm not aiming to reduce modal notions to non-modal ones, I will leave 'possibly' as a primitive. But we can define the notions of being 'maximal' and 'unified' in this way:

x is an unified object $=$ $_{df}$ necessarily, if one part of x is concrete, then every part of x is concrete

x is a maximal object $=$ $_{df}$ necessarily, for all y, if it's possible that both x and y are concrete, then y is part of x.

These definitions ensure that possible worlds either overlap all concrete objects or overlap no concrete objects at all. We can also define truth at a world as:

p is true at world w $=$ $_{df}$ were w concrete, p would be true.

These definitions are evidently more elegant than those definitions offered in the case of Non-Migratory Dualism.

We still need to add some further restrictions on possible worlds that will help model the view after Lewis'. On Lewis' view, spatiotemporally maximal concrete objects are 'modally fragile' in the sense that had anything been different the object wouldn't actually exist. On the current view, possible worlds should be fragile in a similar way:

Fragility

$\Box \forall x$(if x is a concrete possible world, then: had anything been different, no part of x would have been concrete).

Lewis' possible worlds also follow a mereological principle we should adopt here:

Mereological Essentialism

$\Box \forall x \forall y$(if x is a possible world and y is a part of x, then: necessarily, y is a part of x.)

One notable difference from Lewis' view (other than being Dualist) is the following. For Lewis (1986, 69–70), all of the parts of a possible world must be spatio-temporally related. If objects *x* and *y* fail to be spatiotemporally related, they also fail to be part of the same possible world. But the definition I've offered above doesn't require this restriction. It allows for spatiotemporally disconnected objects to be part of the same world. In other words: for Lewis, the principle of unity of worlds is spatiotemporal interconnectedness, but for the Migratory Dualist, the principle of unity is joint concreteness—being possibly concrete together.

Notice that the current view implies that Socrates isn't part of multiple worlds— at least if we think Socrates is "wholly present" in the actual world. The reason is this: if Socrates is part of some merely possible world *W*, then if *W* were actual, Socrates would be concrete. But since Socrates is part of @, it follows from the Mereological Essentialism principle that if *W* were actual, some part of @ would be concrete. But this conflicts with the Fragility principle. Thus, if Socrates is "wholly present" in @, then Socrates isn't part of any merely possible world. This implication might seem untenable; it might seem to conflict with the idea that Socrates could have been different—for surely Socrates could have had a normal nose! But there are two ways to respond to this concern.[18]

The first is to follow Lewis and adopt a form of counterpart theory. For Lewis (1986, 254–255), though Socrates exists only in the actual world, his modal properties are analyzed in terms of counterparts of Socrates—Socrates could have had a normal nose if and only if some counterpart of Socrates has a normal nose. And an object counts as a counterpart of Socrates so long as it is appropriately similar to Socrates (where the similarity relation is context sensitive). Likewise, we could adopt a counterpart theory on which Socrates' counterparts are non-concrete objects. That is, an object will count as Socrates' counterpart so long as the object would be appropriately similar to the way Socrates actually is if it were concrete. (This view resembles other Ersatz Counterpart theories [e.g. Heller (1998), Paul (2006)]. Thus we could say: Socrates could have had a normal nose if and only if some counterpart of Socrates would have a normal nose if it were concrete.

One problem for this suggestion is that counterpart theory seems to conflict with the Williamson-style Necessitism that I used to motivate Migratory Dualism. According to Lewis (1968, 116), there are possible worlds in which Socrates fails to have any counterparts. Thus, counterpart theory would tell us that it's possible

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[18] Humeans might also find the view objectionable. For both the Fragility and the Mereological Essentialism principles posit necessary connections between distinct objects. Thus, both violate an extreme version of Hume's dictum that says 'there are no metaphysically necessary connections between numerically distinct, intrinsically typed, entities' (Wilson 2010, 601). They can also be used to show that a more moderate version is violated. For suppose that (i) objects *x* and *y* are concrete parts of @. It follows from this and Fragility that (ii) necessarily, if *x* is non-concrete, then every part of @ is non-concrete. And it follows from (i) and Mereological Essentialism that (iii) necessarily, y is part of @. And we can infer from (ii) and (iii) that (iv) necessarily, if *x* is non-concrete, then *y* is non-concrete. The conclusion, (iv), conflicts with the moderate version of Hume's dictum: 'there are no metaphysically necessary connections between mereologically distinct, intrinsically typed, entities' (Wilson 2010, 605). Those sympathetic to these principles will have reason to not like the proposed view. Though see Wilson's (2010) paper for criticism of the principles.

for Socrates to not exist—contrary to Necessitism. A second related problem is that, on Lewis' counterpart theory, Socrates doesn't strictly exist in any worlds other than the actual—which is also contrary to Necessitism. To respond to these problems, we should employ Williamson's distinction between the logical and concrete senses of 'exist'. With respect to the first problem, we can hold that if Socrates fails to have a counterpart in some world, that implies that "it's possible for Socrates to not exist" is true where 'exist' is taken in the *concrete* sense. And this is a sensible move to make. This is because counterpart theory is a way of giving the truth conditions for our *ordinary* modal discourse on the basis of a given metaphysical system. (For even if Lewis's metaphysical system—in which Socrates exists in only one possible world—is right, it doesn't imply that our ordinary claim that Socrates could have been different in all sorts of ways is false. For we determine its truth by way of counterpart theory.) Therefore, since the ordinary sense of 'exists' is the *concrete* sense, it is this concrete sense that the migratory dualist should use counterpart theory to provide truth conditions for. With respect to the second problem, we should merely hold a slightly different metaphysical system than Lewis—where Lewis doesn't have Socrates exist (in the *logical* sense of 'exist') in any non-actual world, we can have Socrates exist (in the logical sense) in *every* world,[19] but only be concrete in the actual world.[20]

Apart from counterpart theory, a second option is to draw from Yagisawa's (2010, ch. 6) Modal Parts theory. Like Lewis, Yagisawa thinks of possible worlds as concrete objects. His Modal Parts theory is also much like counterpart theory, but the difference is essentially this: for those non-actual objects that Lewis considers counterparts of Socrates, Yagisawa instead considers them to be *mereological parts* of Socrates. (Another substantial difference is that while Lewis takes the counterpart relation to be context sensitive, Yagisawa takes the mereological relation to be context independent.) Another way to think of Yagisawa's view: just as Socrates is spread out through space by having different spatial parts, Temporal Parts theory tells us that Socrates is spread out through time by having different temporal parts; Modal Parts theory agrees with Temporal Parts theory but also says that Socrates is spread out through *worlds* by having modal parts. We can appropriate Yagisawa's view here as well, so long as we modify it by treating the non-actual parts of Socrates (and every other non-actual object) as *non-concrete*. We could then understand the claim that "it's possible for Socrates to have a normal nose" in the following way: there is some possible world such that, were it concrete, a (temporal part of a) modal part of Socrates would have a normal nose.

The Migratory Dualist account I have developed sits most naturally with Williamson's Necessitist view—that, necessarily, everything necessarily exists. Though perhaps the essential idea doesn't entail Necessitism, it's hard to accommodate

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[19] That is, for every possible world *w*, were *w* actual, <Socrates exists> would be true.

[20] The resulting counterpart theory implies that even though Socrates exists in merely possible world *W* as a non-concrete object *O*, counterpart theory (in most contexts) will tell us not to treat *O* as Socrates' counterpart (despite the fact that *O* is identical to Socrates). In such contexts, identity would not be one of the most salient features in determining similarity.

Contingentism. Contingentists want to be able to say, for example, that (i) Wittgenstein could have had a child and (ii) nothing that ever existed or will exist could have been his child. But the most natural way to accommodate (i) on the current view is to say that there is some non-concrete object that would have been Wittgenstein's child if it were concrete—which is inconsistent with (ii). The Necessitism might seem like a cost to the view. But we have seen that it's a cost that can be independently paid for by preservation of the Possible Truth and S5 principles. Furthermore, anyone who would rather give up on Possible Truth and S5 rather than embrace Necessitism can instead go for Non-Migratory Dualism.

4 Conclusion

In sum, anyone who is sympathetic with both Serious Actualism and Existentialism has good reason to be sympathetic with Dualism. If Serious Actualism and Existentialism are both true, then we must either reject Contingentism (the denial of Necessitism) or reject both the Possible Truth and S5 principles. But whichever way we go, we also have the resources to defend Dualism: those who deny Possible Truth and S5 should be sympathetic with Non-Migratory Dualism, and those who deny Contingentism should be sympathetic with Migratory Dualism. Dualism about possible worlds is a live option despite what current orthodoxy would suggest.

References

Adams, R. (1981). Actualism and thisness. *Synthese, 49*(1), 3–41.
Armour-Garb, B. (2015). New problems for modal fictionalism. *Philosophical Studies, 172,* 1201–1219.
Armstrong, D. M. (1989). *A combinatorial theory of possibility*. Cambridge: Cambridge University Press.
Bennett, K. (2005). Two axes of actualism. *Philosophical Review, 114*(3), 297.
Bynoe, W. (2010). Against the compositional view of facts. *Australasian Journal of Philosophy, 89*(1), 91–100.
Cresswell, M. J. (1972). The world is everything that is the case. *Australasian Journal of Philosophy, 50*(1), 1–13.
Fine, K. (1977). Postscript. In A. N. Prior & K. Fine (Eds.), *Worlds, times and selves* (pp. 116–161). London: Duckworth.
Fine, K. (1985). Plantinga on the reduction of possibilist discourse. In J. E. Tomberlin & P. van Inwagen (Eds.), *Profiles: Alvin Plantinga* (pp. 145–186). Boston: D. Reidel Publishing Company.
Fitch, G. (1996). In defense of aristotelian actualism. *Philosophical Perspectives, 10,* 53.
Frege, G. (1980). *Philosophical and mathematical correspondence*. Chicago: University of Chicago Press.
Heller, M. (1998). Property counterparts in ersatz worlds. *The Journal of Philosophy, 95*(6), 293–316.
Koslicki, K. (2008). *The structure of objects*. Oxford: Oxford University Press.
Lewis, D. (1968). Counterpart theory and quantified modal logic. *Journal of Philosophy, 65*(5), 113–126.
Lewis, D. (1973). *Counterfactuals*. Cambridge: Harvard University Press.
Lewis, D. (1986). *On the plurality of worlds*. Oxford: Blackwell Publishers.
Linsky, B., & Zalta, E. N. (1994). In defense of the simplest quantified modal logic. *Philosophical Perspectives, 8,* 431–458.
Longenecker, M. (2018). Non-concrete parts of material objects. *Synthese, 195*(11), 5091–5111.
Longenecker, M. (2019). Existentialism, aliens and referentially unrestricted worlds. *Synthese, 196*(9), 3723–3738.

Mackie, J. L. (1973). *Truth, probability and paradox: Studies in philosophical logic*. Oxford: Clarendon Press.

Merricks, T. (2015). *Propositions*. Oxford: Clarendon Press.

Nolan, D. (1997). Three problems for 'strong' modal fictionalism. *Philosophical Studies, 87*(3), 259–275.

Paul, L. A. (2002). Logical parts. *Noûs, 36*(4), 578–596.

Paul, L. A. (2006). Coincidence as overlap. *Noûs, 40*(4), 623–659.

Plantinga, A. (1974). *The nature of necessity*. Oxford: Clarendon Press.

Plantinga, A. (1983). On existentialism. *Philosophical Studies, 44*(1), 1–20.

Pollock, J. (1984). *The foundations of philosophical semantics*. Princeton: Princeton University Press.

Powers, L. (1976). Comments on Robert Stalnaker's "Propositions". In A. F. Mackay & D. D. Merrill (Eds.), *Issues in the philosophy of language: Proceedings of the 1972 Oberlin Colloquium in philosophy* (pp. 93–104). New Haven: Yale University Press.

Rosen, G. (1993). A problem for fictionalism about possible worlds. *Analysis, 53*(2), 71–81.

Salmon, N. (1998). Nonexistence. *Noûs, 32*(3), 277–319.

Skyrms, B. (1981). Tractarian nominalism. *Philosophical Studies, 40*(2), 199–206.

Speaks, J. (2012). On possibly nonexistent propositions. *Philosophy and Phenomenological Research, 85*(3), 528–562.

Stalnaker, R. (2010). Merely possible propositions. In B. Hale & A. Hoffman (Eds.), *Modality: Metaphysics, logic, and epistemology* (pp. 21–34). Oxford: Oxford University Press.

Stalnaker, R. (2012). *Mere possibilities: Metaphysical foundations of modal semantics*. Princeton, NJ: Princeton University Press.

Turner, J. (2005). Strong and weak possibility. *Philosophical Studies, 125*(2), 191–217.

Turner, J. (2016). *The facts in logical space: A Tractarian ontology*. Oxford: Oxford University Press.

van Inwagen, P. (1986). Two concepts of possible worlds. *Midwest Studies in Philosophy, 11*(1), 185–213.

Williamson, T. (2002). Necessary existents. In A. O'Hear (Ed.), *Logic, thought and language* (pp. 233–251). New York: Cambridge University Press.

Williamson, T. (2013). *Modal logic as metaphysics*. Oxford: Oxford University Press.

Wilson, J. (2010). What is Hume's Dictum, and why believe it? *Philosophy and Phenomenological Research, 80*(3), 595–637.

Yagisawa, T. (2010). *Worlds and individuals, possible and otherwise*. Oxford: Oxford University Press.