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Scope Fallacies and the "Decisive Objection" Against Endurance

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Abstract From time to time, the idea that enduring things can change has been challenged. The latest challenge has come in the form of what David Lewis has called a "decisive objection", which claims to deduce a contradiction from the idea that enduring things change with respect to their temporary intrinsics, when that idea is combined with eternalism. It is my aim in this paper to explain why I think that no argument has yet appeared that deduces a contradiction from a combination of eternalism and the idea that enduring things change with respect to their temporary intrinsics, except ones that do so by committing scope fallacies.

Keywords Endurance · Decisive objection · Fallacies

Introduction

From time to time in the history of metaphysics, the idea that enduring things can change has been challenged. The first such challenge was Parmenides'. The most recent has made its presence felt by David Lewis; he raised a problem for that idea that I will call "the Decisive Objection." I will argue here, however, that the Decisive Objection's cogency is undermined, for the most part, by the commission of scope fallacies.[1]

Those who accept the Decisive Objection against the idea that enduring things can change with respect to their intrinsic properties (hereafter, sometimes, intrinsic change) believe that it forces one to discuss certain issues. However, while it is undoubtedly true that those issues deserve discussion and resolution, one is not forced to resolve them on the grounds that there is a decisive objection against the idea that enduring things can change with respect to their intrinsic properties that Lewis has identified, for that objection is derived fallaciously.

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It would be helpful to have, at the outset, a statement of what the objection to endurance as an account of the persistence of objects through intrinsic change is supposed to be. Here is David Lewis' classic statement of it:

> The principal and decisive objection against endurance, as an account of the persistence of ordinary things..., is the problem of temporary intrinsics. Persisting things change their intrinsic properties. For instance shape: when I sit, I have a bent shape; when I stand I have a straightened shape. Both shapes are temporary intrinsic properties; I have them only some of the time. How is such change possible? I know of only three solutions.[2]

Three solutions to what problem? When a "how is it possible"-question is asked, there is usually some argument that appears to show that what is actual is really impossible; and it

[1] I would have like to have followed Lewis, and others, in calling what he describes as a "decisive objection against endurance" as an account of the persistence of objects through change "the problem of temporary intrinsics." But some have insisted that my criticism of this objection is *not* in fact an argument against the existence of the problem of temporary intrinsics. They insist that the problem of temporary intrinsics is *not* the problem that I believe that Lewis and others have said it is; this despite the fact that it seems that the phrase 'the problem of temporary intrinsics' was, I believe, first used by Lewis in the sense in which I had intended to use it – as a term for a problem that the claim that enduring things can change with respect to their temporary intrinsics runs into. They insist, rather, that the problem of temporary intrinsics is the problem of what the metaphysics and semantics is of statements of the form 'x is F at t.'

Now *that* problem is a good one deserving of a solution. However, I think that it is *not* the problem that Lewis is referring to in the quotation below. How could the issue of what the semantics and metaphysics of statements of the form 'x is F at t' is be the "principal and decisive objection against endurance as an account of the persistence of ordinary things," as Lewis has said the problem of temporary intrinsics is? Perhaps the issue of the semantics and metaphysics of statements of the form 'x is F at t' would be *raised* if there were a decisive objection to endurance as an account of the persistence through change of intrinsic properties; but it is clearly not identical with that problem.

In addition, the problem of saying what it means to say of an object that it has a property at a time is a problem that arises even in cases where an object does not change. So long as an object has any property at any time, whether that property is intrinsic or not, and whether it ever loses that property or not, there is an occasion for asking what the possession of a property at a time involves, both semantically and metaphysically. Thus, that problem has nothing specifically to do with *temporary* properties, and so has nothing specifically to do with *change*, whereas the passage that I will cite clearly suggests that it is the phenomenon of change that is the cause for the difficulty for the idea that things that persist through change with respect to their intrinsic properties endure.

Nevertheless, in order to forestall misunderstanding, I shall avoid using the phrase 'the problem of temporary intrinsics.' David Lewis has said that there is a decisive objection against the idea that enduring objects persist through change of intrinsics properties, and I shall call that objection "the Decisive Objection."

[2] Lewis, D. (1986) *On the plurality of worlds.* (pp 203–204). Oxford: Basil Blackwell. Earlier in the section, "Against Overlap," from which this passage was taken, Lewis discusses the (alleged) problem of *accidental* intrinsics and encourages the adoption of a "counterpart" view of how it is possible for a thing to have different intrinsic properties in different possible worlds. That there is a problem of how it is possible for a thing to have different intrinsic properties at different *times*, Lewis insists, is *analogous* to the problem of accidental intrinsics ("Endurance through time is analogous to the alleged trans-world identity of common parts of overlapping worlds" (p. 204)). I do not wish to get involved here in a discussion of whether there really is a problem of accidental intrinsics, except to point out the following. It is *not* as if Lewis (or anyone else that I know of) gives an *argument* for the claim that if there is a problem of how it is possible for a thing to have different properties in different possible worlds, then there is a problem of how it is possible for a thing to have different properties at different times. Rather, he merely claims that the problems are *analogous*. Thus, if the problems really are analogous, as Lewis insists, then one could take the present paper's argument against the claim that there is a problem of how it is possible for a thing to have different intrinsic properties at different times to have a corollary – that there is, likewise, no problem of how it is possible for a thing to have different properties in different possible worlds. Alternatively, if one is convinced that there really is a problem of accidental intrinsics, one could then take my argument against the claim that there is a problem of how it is possible for a thing to have different properties at different times to be a *reductio ad absurdum* of the claim that the two problems are analogous.

often turns out that the possibility of the actuality in question is saved by showing that the threatening argument only *appears* to, but does not really, threaten what is taken to be obviously possible. In the present case, however, it is claimed that there is an argument that does not merely appear to, but *really does*, show that intrinsic change in enduring things is impossible.

It is important to be clear about just which view it is against which Lewis believes he has a decisive objection. When Lewis gets around to considering the "three solutions," he considers one according to which there really are no truly intrinsic properties and that what appear to be intrinsic properties, like being bent, are really relational properties, e.g., being bent at noon. He considers a second according to which what seem to be an intrinsic property, like being bent, is really a relation, the relation of being bent at, one of whose relata is a time. And he considers a third solution, which involves the rejection of the idea that the objects that change with respect to properties that really are intrinsic are not objects that endure such changes, that they really perdure.[3] So just what view is it that Lewis thinks he has a decisive objection against? It is the view that enduring things change with respect to their intrinsic properties, where those properties are thought to be truly intrinsic and are *not* to be thought of in terms of any "relativizing" or "relationalizing" manner, as the first two solutions just mentioned do. The three solutions Lewis refers to are to be considered only because it is believed that the view according to which enduring things change with respect to *really* (and not merely apparently) intrinsic properties isn't a possible solution; it cannot provide an answer to the question of how intrinsic change in enduring things is possible, except to say that it isn't.

What the quotation from Lewis clearly suggests, then, is that there is an objection to the idea that persisting things endure the changes they apparently undergo with respect to their (truly) temporary intrinsics. And in asking how such change is possible, Lewis is clearly suggesting that there is some argument whose conclusion is that such change is *not* possible. My concern in this paper is over what that argument might be, and whether that argument does in fact show that intrinsic change in enduring things really is impossible.

Temporary intrinsics are properties that are both temporary and intrinsic. They are *intrinsic* to the things that have them in that they are not relational. It is, I suppose, possible for something to be round, regardless of the existence of other things or the properties that any other thing possesses (apart from the atoms, etc. that are parts of the thing's periphery and their properties); and that, I presume, qualifies roundness as intrinsic.[4] *Temporary* properties are such that the things that have them can, at least apparently, have them at one time and lack them at another. Thus, since it at least appears to be the case that an object can be green at one time and blue at another, and straight at one time and bent at another, greenness and blueness, and being straight and being bent, qualify as temporary.

According to an ancient account, a thing changes just in case it has a property at one time and lacks it at another. Change thus involves properties that are temporary. And surely, it might be said, a thing can change by having and then lacking some *intrinsic* property;

[3] The first two solutions are rejected by Lewis for reasons that need not concern us here; but it should be noted that his reasons for rejecting them do not amount to showing that they are impossible. Rather, he thinks that the cost of adopting them are too high in that they amount to rejecting the idea that such properties as that of being bent are really intrinsic. Of course, Lewis favors the third solution. A fourth solution involves giving up eternalism in favor of presentism. But that is a solution that is not in play here.

[4] This is not to say that the notion of an intrinsic property is unproblematic. See Lewis, D. (1999) Extrinsic properties. reprinted in his *Papers in Metaphysics and Epistemology.* (pp. 111–115). Cambridge: Cambridge University Press. and Lewis, D. & Langton, R. Defining 'intrinsic.' *ibid*., pp. 116–132.

after all, what could be more obvious than that a thing which was square and is now round has changed? The case of Xanthippe's becoming a widow by dint of Socrates' dying might be controversial, since it is unclear whether Xanthippe, in becoming a widow, really changed at all; she did not, after all, alter. But *if* this is a case of change, it involves change with respect to an *extrinsic* property.

The apparently uncontroversial cases of change, then, just are changes with respect to temporary intrinsics. Nevertheless, it has been argued that there *is* a problem with the very idea of an enduring thing's changing with respect to its temporary intrinsics.

The "Decisive Objection"

Those who accept the Decisive Objection do *not* claim that a problem for the idea that enduring things can change with respect to their intrinsic properties arises because of the nature of change and the nature of temporary intrinsics alone. Rather, there is a problem, they insist, that arises when the claim that *enduring* things change with respect to their temporary intrinsics is combined with a view about time known as *eternalism*. The problem, according to such philosophers as Lewis, Merricks, and Hinchliff, is that a *contradiction* can be deduced.[5]

Eternalism is a view that, it is alleged, contrasts with *presentism*, according to which only the present time exists, that only what exists now exists, and that the only properties a thing has are those it has at the present time. Eternalism, on the other hand, asserts that

> past and future objects and times are just as real as currently existing ones. Just as distant places are no less real for being spatially distant, distance times are no less real for being temporally distant.... Reality consists of a four-dimensional manifold of events and objects – the so-called 'block universe.' In the block universe, dinosaurs, computers, and future human outposts on Mars are all equally real.[6]

According to Trenton Merricks (as well as others), eternalism implies that there are no enduring things, and is thus inconsistent with the existence of enduring things which change; this is, I presume, what Merricks intended in arguing that eternalism implies that there are no enduring things; for enduring things endure what they undergo, namely change.[7] Now, how is this conclusion deduced?

Suppose that some enduring thing persists through a change from being F at one time to not being F at another time (where F is an intrinsic property). According to those who accept the Decisive Objection, eternalism implies that the object in question is then both F and not F. But, this is impossible; so, no enduring thing can change. And if changing is essential to enduring things, there are no things that endure.[8]

This, I take it, is the Decisive Objection to endurance as an account of the persistence of objects through intrinsic change: persisting things cannot, on pain of contradiction, endure change with respect to their intrinsic properties, if eternalism is true – a most unwelcome result.

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[5] See, for example, Lewis, D. *On the plurality of worlds.* (pp. 202–205); Merricks, T. (1995) On the incompatibility of enduring and perduring entities. *Mind,104*(414): 523–531, esp. pp. 526–528; and Mark Hinchliff, *op. cit.*

[6] Sider, T. (2001) *Four-dimensionalism.* (p. 11) Oxford: Clarendon.

[7] Merricks, *op. cit.*, pp. 526–527.

[8] If a thing endures through a change from being F to not being F, it does not merely come to lack F; it acquires one of F's contraries. But a thing cannot, it is said, possess contrary properties. Thus, again, it will be argued, change in enduring things is impossible.

As mentioned earlier, there have been various responses offered in the face of this result. It has been suggested, for example, (a) that we should reject eternalism in favor of presentism, (b) that endurance should be rejected in favor of perdurance as an account of persistence, (c) that the idea that there are any truly intrinsic properties should be rejected (that all apparently intrinsic properties are in reality either relational properties, like being round at noon, or are really relations one of whose relata is a time), and (d) that the relation of exemplification, which might be thought to bind objects and properties, really binds objects, properties, *and times*.

Responses (a) and (b) concern, respectively, theories about the nature of time (presentism vs. eternalism) and the metaphysics of persistence (perdurance vs. endurance).[9] Responses (c) and (d) are concerned with the semantics and metaphysics of statements of the form 'x is F at t.'

One can accept that the semantics and metaphysics of such statements, along with the nature of time and persistence, are fit and important subjects for philosophical discussion. And if the Decisive Objection were sound, then, of course, one would be forced to discuss alternative theories of persistence, alternative theories of time, and alternative theories of what it means to say of a thing that it has a property at a time; for if it were sound, the existence of enduring things that change intrinsically would be incompatible with eternalism. But, I shall argue, there is no way, without committing fallacies, to deduce a contradiction from the assumption that enduring things change and the assumption that eternalism is true. And so, if the ideas embedded in (a)–(d) are deserving of philosophical discussion, then the impetus for such a discussion must have a source *other* than the Decisive Objection.

Tensed Interpretations

The deduction of a contradiction from apparently obvious truths surely demands at least a little scrutiny. Here, we are being asked to conclude, from the apparently obvious fact that some enduring thing, x, is F at t_1 (where F is intrinsic) and is not F at t_2 (where $t_1 \neq t_2$), that x is, impossibly, both F and not F:

$$\text{(A)}\quad \frac{\begin{array}{l}\text{x is F at } t_1\\ \text{x is not F at } t_2\end{array}}{\text{x is F and not F.}}$$

However, it seems that (A) is valid only if arguments (B) and (C) are valid:

$$\text{(B)}\quad \frac{\text{x is F at } t_1}{\text{x is F,}}$$

$$\text{(C)}\quad \frac{\text{x is not F at } t_2}{\text{x is not F;}}$$

that is, only if 'x is F at t_1' implies that x is F, and 'x is not F at t_2' implies that x is not F. But, how are (B)'s and (C)'s conclusions supposed to follow?

[9] While I have doubts about whether eternalism and presentism *can* be understood as substantive and rival views about time, it is not my intention to discuss that issue here. That issue is the subject of my paper, "Time for a Change: A Polemic Against the Presentism/Eternalism Debate," Topics in Contemporary Philosophy, Vol. 6: Time and Identity (MIT), (in press). And my views on the perdurance/endurance controversy are best left to another occasion.

If we interpret the occurrences of 'is' in 'x is F' and 'x is not F' as 'is at some time or other,' then (B) and (C) will be valid, since, if x is, or is not, F at some *particular* time, then it is, or is not, F at *some time or other*. However, we will be able to deduce the contradiction intended in (A)'s conclusion from the conjunction of the conclusions of (B) and (C) only if we commit a scope fallacy involving an existential quantifier. If 'at some time' has small scope, then (A)'s conclusion means (1):

$$\text{x is F at some time and x is not F at some time,} \tag{1}$$

which is equivalent to

$$(\exists t)(\text{x is F at t})\&(\exists t)(\text{x is not F at t}). \tag{2}$$

But then the (A)'s conclusion is *not* a contradiction. If, however, 'at some time' has *large* scope, then (A)'s conclusion is equivalent to

$$(\exists t)(\text{x is F at t } \& \text{ x is not F at t}). \tag{3}$$

and that *is* the desired contradiction. But, (3) simply does *not* follow from (A)'s premises, for together they neither say nor imply that there is a *single* time at which x is both F and not F.

Perhaps we should pay attention to the different occurrences of the word 'is' in

$$\text{If an enduring object persists through some change, and is F at one time, and is not F at another, then that object both is and is not F,} \tag{4}$$

a claim that eternalists who accept the Decisive Objection insist must be true.[10]

Again, if we interpret the occurrences of 'is' that appear in the antecedent of (4) as in the present tense, then, on one reading, (4) asserts that if some object is *now* F at one time and *now* not F at another, then that object is *now* both F and not F.[11] But, we have *no* reason to think that (4), so construed, is true. After all, so construed, all that (4)'s antecedent implies is that, at a given time (namely now), some object is both F at one time and not F at another. It implies, for example, that, if today, it is true both that my car is blue next Tuesday and that it is red next Wednesday, then, today, my car is both blue and red. But we have not reason to believe that.[12]

[10] See Merricks, p. 526, Jubien, M. (1993). *Ontology, modality, and the fallacy of reference.* (pp. 24–27). Cambridge: Cambridge University Press. and Lewis, D. *On the plurality of worlds.* pp. 202–204.

[11] If this interpretation of (4) sounds a bit odd, perhaps it will appear less so if rendered as 'if it is now the case that some object is F at one time, and it is now the case that it is not F at another, then it is now the case that it is both F and not F.'

[12] One could see how an inconsistency would follow from the idea that something has and then lacks a property, in conjunction with eternalism, if eternalism expressed the idea that all times do not merely exist, but exist *at the very same time*. For if so, it would follow that, if at t_1 x is F at t_2, then x is F at t_1, for times that exist at the same time are the *same* time. Then, if x were now F at one time, and not F at another, that object would be both F and not F at the same time; and that is a contradiction. But I see no reason why eternalism should be thought to express an idea which seems absurd on its face and for which no good reason can be given. Moreover, the idea amounts, ironically, to a capitulation to and adoption of some form of *presentism*. If all times exist at the same time, then, since the present time clearly exists, all times would *be* the present time, and, thus, everything that has ever existed or will exist would exist *now*.

The claim, that a contradiction follows from the assumption that an enduring thing changes intrinsically, can be accepted, if we equivocate on scope in the following way. The sentence

x is now F at t (5)

is ambiguous. In one sense, the occurrence of 'now' in (5) has *large* scope relative to 'at t.' In that sense, (5) does imply that x is F at t, since, if it is ever the case that x is F at t (and, according to (5), it is now), then it is always the case that x is F at t. But in that sense (5) does *not* imply that x is F, either now or at any time other than t. And so, the conjunction of 'x is now F at t_1' and 'x is now not F at t_2' will not imply the desired contradiction that x is both F and not F (now or at any other time).

If the occurrence of 'now' in (5) has *small* scope, then what (5) says is that at t x is F *then* (that is, now relative to t). But in that sense, no contradiction can be derived from the conjunction of 'x is now F at t_1' and 'x is now not F at t_2.' All that follows is that x is F at t_1 and x is not F at t_2.

However, in another sense, when 'now' has what might be thought of as *intermediate* scope, (5) *does* imply that x is F now, since, if it is true at any time that x is now F, then it is true at all times that x is now F. In this sense, 'x is now F at t_1' is equivalent to 'at t_1, x is now F,' where the occurrence of 'now' picks out the *present* moment (*not* a time which is present relative to t_1). And then one could argue that, if x is now F at t_1 (in that sense) and now not F at t_2, then, in this third sense of (5), it follows that x is now F and that x is now not F. And we have the contradiction that eternalists believe follows from the idea that an enduring thing changes.

However, those who believe that intrinsic change in enduring things is possible do *not* interpret the claims that express the idea that some thing changed, claims of the form 'x is F at t_1 and x is not F at t_2,' in this third sense of (5), but in the *first*. That is, if one thinks that some object, x, has changed by losing F at some time between t_1 and t_2, then one thinks that it is now (and has always been) the case that x is F at t_1, and that it is now (and has always been) the case that x is not F at t_2. What one does *not* think is that, at some distinct times, t_1 and t_2, x is both now F and now not F. So, those who would, in this way, deduce a contradiction from claims about change in enduring things, do so by committing a fallacy of equivocation involving a scope ambiguity.

Those who accept the Decisive Objection hold that, if an enduring thing apparently changed from being F to not being F, then that object would be, impossibly, both F and not F. But why? It must be because they think that if x is F at t, then x is F *simpliciter*. But if the occurrences of 'is' in that conditional are in the present tense, then that conditional is simply false, and the desired contradiction cannot be soundly deduced. So, they must deny that those occurrences are in the present tense.

This result should really come as no surprise. Those who accept the Decisive Objection – presentists and eternalists alike – think that a contradiction can be deduced from the claim that some enduring object undergoes intrinsic change *and* the claim that eternalism is true. Presentists propose to solve the problem by denying eternalism, eternalists (typically) by denying that changing things endure. Still, both presentists and eternalists believe that the contradiction can be deduced only by assuming eternalism. And eternalism, the view that all times are on the same ontological footing, is typically associated with the idea that predication is *tenseless*.[13] After all, eternalists think, for example, that Aristotle and I both

[13] See Sider, *Four-dimensionalism.op. cit.*

exist; and that wouldn't be true if that meant that Aristotle and I both exist at the present time. Indeed, there is *no* time such that Aristotle and I both exist then.[14] So, if it is in some sense true that Aristotle and I both exist, as eternalism insists, 'exist' must not be in the present tense.

Tenseless Interpretations

We must, therefore, take the occurrences of 'is' that appear in (5) to be *tenseless*, whatever that means precisely. But, anticipating, I do not see how it is going to follow, from the fact that something is tenselessly F at one time and tenselessly not F at another, that it is tenselessly both F and not F.

Just how is a tenseless sense of 'is,' when used in predications of intrinsic properties to contingently existing things, to be understood? Perhaps it is to be understood along the following lines.

Suppose that someone says "there is an elephant," where the occurrence of 'there' does *not* mean anything like 'over there' or 'in that place'; rather, one is simply *placelessly* asserting the existence of an elephant. Still, if that assertion were true, then there would have to be an elephant *somewhere*, and that is *not* an accident; elephants, being physical beings, essentially have spatial location. If, for every "there" (that is, for every place), it is false that there is a elephant *there*, then it is simply false that there (placelessly) is any elephant at all. It is of course also the case that, if there were an elephant at some place, it would be true that there is an elephant *simpliciter* (that is, placelessly). Thus, at least for objects that, by their very nature, are spatial things, there is (placelessly) such a thing if and only if that thing is located at some place or other.

So, if it is false that there (placelessly) is an elephant, then there is no elephant anywhere. Thus, if there were an elephant in one place and no elephant in another place, then it would *not* be true, in the placeless sense, both that there was and that there wasn't an elephant. It would just be true that there was; and no contradiction could be derived from the fact that some places have elephants and some don't, unless one wished to commit a scope fallacy involving negation.

The statement,

$$\text{There is an elephant}(\text{in the placeless sense}) \tag{6}$$

implies

$$(\exists x)(\exists y)(x \text{ is an elephant } \& \ y \text{ is a place } \& \ x \text{ is located at } y); \tag{7}$$

and (6) does contradict its denial, 'there is (placelessly) no elephant,' that is, (8):

$$\sim (\exists x)(\exists y)(x \text{ is an elephant } \& \ y \text{ is a place } \& \ x \text{ is located at } y). \tag{8}$$

However, one might assert 'there is no elephant,' not in the placeless sense, but intending to imply only that there is an elephant that is not at a *particular* place; this would give us (9):

$$(\exists x)(\exists y)(x \text{ is an elephant } \& \ y \text{ is a place } \& \ \sim (x \text{ is located at } y)). \tag{9}$$

[14] There are periods of time, one which begins before Aristotle's death and ends after my birth, *during* which we both can be said to exist. But, even so, there is still no time during which Aristotle's life and mine overlap.

So, one might think that a contradiction arises from the fact that there aren't elephants everywhere and from the assertion, in an attempt to capture that fact, of both 'there is an elephant' and 'there isn't an elephant.' But these claims are contradictory only if they are interpreted as (7) and (8); and no one wishing to express the non-ubiquitousness of elephants will assert both. Rather one will assert claims interpretable as (7) and (9), and, so interpreted, such claims are consistent. Thus, a contradiction might be thought deducible from the non-ubiquitousness of elephants only if one commits a scope fallacy involving negation.

In a similar way, suppose that someone says "the barn is red," where the 'is' does *not* mean anything like 'is now.' That is, suppose that the occurrence of 'is' here has no tense, that it is *tenselessly* predicative. Now, if that assertion were true, then, despite the fact that 'is' has no tense, the barn would have to be red at some time or other, and that is not an accident. Colored things are things that exist in time and have their colors at times. If, for every "now," it were false that the barn is red now, then it would simply be false that the barn is tenselessly red.

There are, one might suppose, things that do not exist in time and do not have at least some of their properties at times. Thus, it may well be the case that the occurrence of 'is' in 'seven is prime' is tenseless, in that the proposition that seven is prime does *not* imply that seven is prime at some time or other; and the reason for this is that the proposition that seven is prime would be true even if there were no times.[15] And perhaps, we can understand the tenselessness of the occurrence of 'is' in 'the barn is red' on this model.

However, it should be noted that if 'seven is (tenselessly) prime, but is not prime now' expresses any proposition at all, it expresses one that we know a priori to be false. The proposition, if any, that it expresses is, of course, not a contradiction, if there are possible worlds in which there are no times. But in any possible world in which it does express a proposition, the word 'now' would have to have a referent; and in any such world, the proposition would be false.[16] So, in worlds in which there are times, the proposition expressed by 'seven is now prime' would be true; and so, I presume, would the proposition expressed by 'seven is prime at all times.' Thus, even "tenseless" entities, like numbers, have properties at times in worlds in which there are times, including those properties that they would have even if there were no times. And, of course, worlds in which there are *contingent*, temporal objects, like barns, that change are worlds in which there are times.[17]

So, when we are concerned with contingent objects and the temporary intrinsics that such objects are said to have and then lack, I simply do not know what someone might have in mind by asserting, for example, that the barn is (tenselessly) red, while denying that the barn is red at some time or other. Thus, 'the barn is (tenselessly) red,' even construed on the model of 'seven is prime,' surely implies that the barn is red at some time or other. It also seems to be obviously the case that, if the barn were red at some time, it would be true that the barn is (tenselessly) red. Thus, at least for objects that, by their very nature, are temporal things, such a thing has a property tenselessly if and only if it has it at some time or other.

[15] My thanks to Michael McKinsey and Ted Sider for reminding me of this point.

[16] I owe this point to Michael McKinsey.

[17] I suppose that one might claim that numbers exist "outside of time," rather than at all times. However, numbers do have a least some properties at times; for example, the number two has the property of being my favorite number, and the number one used to number my suits until I bought another. So, I don't see any principled objection to its being true (in worlds in which there are times) that the number seven is prime now and at all times.

Defenders of the Decisive Objection must think that, if the barn were red at some time, then it would be true that it is tenselessly red. After all, it is they who believe that a contradiction can be deduced from the fact that an enduring barn is red at one time but not at another; and that can be true only if it is the case that the proposition that the barn is red at some time implies that the barn is (tenselessly) red, and the proposition that the barn is not red at some (other) time implies that the barn is (tenselessly) not red.

So, let us suppose that, if the barn is red at some time, then it is tenselessly red. But if the barn were also *not* red at another time, would it then also be true that the barn is (tenselessly) not red? As in the case of placeless predication, it depends on the scope of 'not.' If 'not' has *large* scope, then 'the barn is (tenselessly) not red' is the denial of 'the barn is (tenselessly) red,' and implies that the barn is red at *no* time; but if the 'not' has *small* scope, then the sentence implies only that the barn is not red at some time. That is, 'the barn is red at some time' and 'the barn is not red at some time' are not necessarily contradictories, for there is a scope ambiguity in the latter. 'The barn is not red at some time' may mean either

$$\sim (\exists t)(\text{the barn is red at t}) \tag{10}$$

or

$$(\exists t)(\sim \text{the barn is red at t}). \tag{11}$$

'The barn is red at t' is inconsistent with (10), but consistent with (11).

In order to generate the contradiction that those who accept the Decisive Objection take to be derivable, in conjunction with eternalism, from the idea that enduring things change with respect to their temporary intrinsics, it must at least be the case that 'x is red at t_1' implies that x is red, and that 'x is not red at t_2' implies that x is not red. However, if 'x is not red' is without tense, or implies only something like (11), then no contradiction can be derived. But, believers in tenseless predication of temporary intrinsics do not think that 'x is not red' either means or implies anything like (10). For what (10) means is that the barn is not red at *any* time. And, while that is inconsistent with the barn's being red at some time, t, no one who believes that enduring things can change with respect to their temporary intrinsics will accept both (10) and the claim that the barn is red at that time.

Thus, 'the barn is (tenselessly) red and the barn is (tenselessly) not red' is a contradiction only if 'not' has *large* scope. However, those who think that it is possible for an enduring thing to change from being red to not being red do *not* think that, after the change, 'the barn is not red,' with its 'not' given large scope, is true. If the barn were red at one time and not red at another, it would *not* follow that the barn both was and was not red in a way which is inconsistent, at least not unless one moved fallaciously from a small scope interpretation of the 'not' in 'the barn is (tenselessly) not red' to a large scope interpretation.

One might think that this discussion would go better for those who accept the Decisive Objection, if it were cast in terms of x's being red and x's being green (instead of x's being not red). But they don't. After all, 'red' and 'green' are contraries; and so x's being green just is one way of its not being red. Suppose that 'x is red at t_1' implies 'x is (tenselessly) red' and that 'x is green at t_2' implies 'x is (tenselessly) green.' Then 'x is red at t_1 and x is green at t_2' implies 'x is (tenselessly) red and x is (tenselessly) green.' But is that a contradiction?

It is *not* a contradiction, given the discussion above of what I think the tenseless 'is' means. But what else could it mean? One might take a suggestion from Hestevold and

Carter for understanding tenseless *existence*[18] and adapt it to tenseless *predication*. In that case, the claim 'the barn is (tenselessly) red' would not imply that the barn was red, nor that the barn is red, nor that the barn will be red. But this does not help, since barns are contingently existing things, and such things have their colors at times. So, while 'the barn is (tenselessly) red,' construed in this way, does not imply that the barn was red, does not imply that the barn is red, and does not imply that the barn will be red, it is surely the case that it *does* imply that the barn was, is, or will be red.

I suppose that there might be some *other* explication of what the tenseless 'is' means which is such that 'x is red at t' implies that x is (tenselessly) red, and is also such that 'x is (tenselessly) red and x is (tenselessly) not red (or green)' is a contradiction. But we have not yet been told by those who accept the Decisive Objection what it is.

Conclusion

In "Tensed Interpretations," I argued that *tensed* interpretations of the cupola will not permit one to generate the contradiction that defenders of the Decisive Objection believe can be generated from the idea that enduring things change with respect to their temporary intrinsics. And in "Tenseless Interpretations," I argued that *tenseless* interpretations of the copula are, in effect, equivalent to tensed ones; and so, even with their help, no threat of contradiction looms over the possibility of intrinsic change in enduring things, even when eternalism is assumed. Arguments that appear to threaten that possibility, I have argued, commit scope fallacies.

The Decisive Objection against the idea that enduring objects can change with respect to their temporary intrinsics fails, if the copula is interpreted as tensed. Moreover, eternalism is committed to the view that anything that exists now, or once existed, or will exist, exists tenselessly; and so that view seems committed to the equivalence of the tenseless copula and a tensed one. So, no contradiction can be deduced, without committing scope fallacies, on the tenseless interpretation of the copula that I have considered here.

Thus, if there is an objection to the idea that enduring things change with respect to their temporary intrinsics that arises on some tenseless interpretation of statements of the form 'x is F at t,' then there must be yet *another* tenseless interpretation of the 'is' of predication. But, again, we haven't been told what that interpretation is, and I suspect that there isn't one forthcoming.

Now, there might be some other way to show that there is a problem with the idea of an enduring thing's changing with respect to its intrinsic properties. Parmenides, for example, argued that change was impossible; but, at least according to Aristotle, he did so only by failing to distinguish between the essential from the accidental properties of a thing. Apart from that, I have yet to see an argument that deduces a contradiction from a combination of eternalism and the idea that enduring things change with respect to their temporary intrinsics, except ones that do so by committing a scope fallacy. And therefore, so far as I can tell, the Decisive Objection fails to constitute a cogent objection to endurance as an account of the persistence of objects through intrinsic change.

[18] Scott, H. & Carter, W.R. (2002) On presentism, endurance, and change. *Canadian Journal of Philosophy* 32, (3):491–510, esp., 599. There, they write, "X exists *simpliciter*, if and only if X is among the things that the universe includes...That x exists *simpliciter* does not alone imply that X did exist, that X presently exists, nor that x will exist."

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