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## **Chapter 7**

### **WORLDS, PROPERTIES AND TIME:**

#### **A FEW SUBSTANTIAL THOUGHTS AND MANY EMPTY IDEAS**

In the last two chapters, all the main debates and ideas discussed were concretely empty, with the exception of some few that were highly parochial, concerning little more than how it is that some humans use their languages, or which concepts they employ. In the chapters preceding them, in each of the book's first three chapters, there was more than just that. As well there was discussion of some concretely substantial characteristically philosophical issues and ideas (pertaining to those issues). In this present chapter, I'd like to return to that earlier way of doing things, discussing thoughts of all three sorts, and noting which of the sorts includes each thought under discussion. And, I'd also like to discuss some large-scale philosophical matters or, at the least, questions many mainstream philosophers take to be nothing less than that.

At the time of this writing, an especially good way to do that will have us focus on a few central themes in the metaphysics of David Lewis. There are several reasons for this. First, on mainstream philosophy, his influence is currently greater than that of any other recent writer, even as was also true over the last couple of decades. Second, he systematically treat most large-scale matters central to recent mainstream philosophy, even if only sometimes doing that in a way that's happily accessible, and rather readily understood. And, third, we've already noticed

observed some of his metaphysical material. Indeed, we've noted, in his metaphysical writing, both a (novel) concretely substantial thought (and position) that's characteristically philosophical and also his endorsement of a concretely and analytically empty putative position: Discussed in chapter 1, the former occurred with his idea of there being ever so many mutually isolated concrete worlds, though that should be examined further, as I mean to do in the present chapter's first section. Discussed in chapter 5, the latter occurred with his endorsement of mereological Universalism. From what we've already noticed, then, we have reason to think that discussion of Lewis's views on some other large-scale matters will make salient both some further characteristically philosophical concretely substantial ideas and also some further sweeping thoughts that, by contrast, are concretely and analytically empty ideas.

### **1. Are There ANY Concrete Worlds, Including even the Actual World?**

Among the several philosophically famous thoughts he offered, the very most famous is that which he calls "The Thesis of Plurality of Worlds". At the heart of this thoughtful thesis, there's a quite novel and sweeping idea that's concretely substantial. And, using Lewis's quite natural way of expressing this concretely substantial idea, in terms of concrete worlds and their component concrete parts, or inhabitants, in chapter 1, I said as much. But, as I'd now like to notice, the concretely substantial heart is a thought that's not dependent on reifying anything, on recognizing the likes of any world. So, in effect, Lewis's expression of his thesis combines the concretely substantial heart with something else. What is that something else? It is a positive view on a certain issue that I, at least, take to be a concretely empty issue. Well, then, what issue is that? At least roughly, and quite minimally, it is the issue of whether, when there is this concrete particular spatially related to that other concrete particular – or temporally related, or

spatiotemporally related, or somehow otherwise externally related, there is, in addition to the related particulars, something else of which they are both parts, and which itself isn't similarly (externally) related to some yet other thing of which it is a part.

Now, it must be admitted, I fear, that Lewis's most salient writing readily raises the thought that this issue is one of considerable philosophical importance, even if it might not be a concretely substantial issue. With unnecessary verbiage deleted, here's the first paragraph of (the body of) *On the Plurality of Worlds*:

The world we live in is a very inclusive thing. Every stick and every stone you have ever seen is part of it. And so are you and I. .... Anything at any distance at all is to be included. Likewise the world is inclusive in time. .... No.. long-gone primordial clouds of plasma are too far in the past, nor are the dead dark stars too far in the future, to be part of this same world. Maybe, as I myself think, the world is a big physical object; or maybe some parts of it are entelechies or spirits or auras or deities or other things unknown to physics. But nothing is so alien in kind as not to be part of our world, provided only that it does exist at some distance and direction from here, or at some time before or after or simultaneous with now.<sup>1</sup>

The book's second paragraph talks about various ways in which our world might have been different, adding only a bit to what's relevant now. But, the third paragraph adds a lot:

.... There are countless other worlds, other very inclusive things. ... The worlds are like remote planets; except that most of them are much bigger than mere planets, and they are not remote. Neither are they nearby. They are not at any spatial distance whatever from here. They are not far in the past or future, nor for that matter near; they are not at any temporal distance from now. They are isolated: there are no spatiotemporal relations at all between things that belong to different worlds. Nor does anything that happens at any one world cause anything to happen at another. Nor do they overlap; they have no parts in common, ..<sup>2</sup>

As it may well seem, then, for Lewis it's important not only that there be enormously many concreta each mutually isolated from each other, but it's important that many of them each belong to a world, and that each of these worlds is mutually isolated from all the others. But, I'm not sure that Lewis really believes this. For one thing, it's seems crazy to burden him with anything like this: When a certain electron is utterly isolated from another electron, that always

obtains indirectly, via the first belonging to a certain world, and the other belonging to another world, and these two worlds being mutually isolated. Better to forget about the vast middlemen.

At all events, Lewis's famous paragraphs at least suggest this concretely empty dispute. On one side are the nihilists about concrete worlds: When some concrete particulars are externally related to each, however numerous and various should be the particulars, and however variously they may be externally related, that's all there is to that; it's not that, as well (and maybe in virtue of that) there's a concrete *world* that includes all those nicely related particulars, and not any others, unrelated to them spatially, temporally, causally, and otherwise externally. On the other side, there's everyone else, both the commonsensical monists as to concrete worlds – there's only one, the actual world – and also all the various brands of pluralists as to such worlds. Though it's in *some sense a worldly* issue, *that* worldly issue is a concretely empty issue. Moreover, I submit, it's a philosophically unimportant issue (whether or not there are some philosophically important issues).

To more than a few, what I've been saying, in this section, may seem like an utterly contrived affair, both divorced from real mainstream philosophy and even something like a parody of that academic activity. But that's not so, and not even a close call.

A single example will sufficiently attest to that fact. Published at the time of this writing, in what's probably academic philosophy's most prestigious journal, here are some relevantly exemplary and very recent sentences from Jonathan Schaffer:

In particular I will assume that there is a world and that it has proper parts. More precisely, I assume that there is a maximal actual concrete object – *the cosmos* - of which all actual concrete objects are parts. I should stress that I am only concerned with actual concrete objects. *Possibilia, abstracta*, and actual concreta in categories other than object are not my concern ...

The assumption that there is a world with proper parts may seem modest and plausible, but it is certainly controversial, in at least two respects. First, it is controversial to assume

that there are parthood relations at all. The nihilist holds that there are no actual – and perhaps even no possible – instances of the proper parthood relation.\* Second, it is controversial to assume that there is a world. For instance, the organicist holds that there are only particles and organisms, and presumably the actual cosmos is neither.\*\*<sup>3</sup>

As I think you'll agree, the issue between Schaffer and his noted nihilist is a concretely empty issue, as is also the issue between him and his noted organicist. As I'll submit, though they may be argued arduously, these issues are of no great philosophical importance.

In closing this section, it's fair to say that, if Lewis offers thoughts that are concretely substantial ideas, those thoughts are independent of the question of whether there are any concrete worlds, much less many of them. As already indicated, here is one such issue, very nearby the thrust of Lewis's most recently cited writing: The question of whether, when there are two concrete particulars spatially and temporally related to each other, as with say, one Cary and one Pat, and there are also two other concrete particulars so related to *each* other, as with say, one Cal and one Peter, it's absolutely always true that each of the first pair are so related to each of the second pair, and (of course) vice versa. On this concretely substantial question, the vast majority of mainstream philosophers answer "Yes" while Lewis, to his great credit, I think dares answer "No".

Without presuming that "ways" refers to any real concreta – or, for that matter, anything other (noncrete) reality there might be, Lewis alerts us to such concretely substantial thoughts as this idea: Even while one way for all concrete reality to be is for any spatial concretum to be spatially related to all other spatial concreta, that's just one way. Another way is for each spatial concretum to be spatially related to just some of the others, not to all. (And, partially depending on which empty ideas are the correct ones, there may be yet other ways still, as with, for example, the way on which just some spatial concreta are spatially related to each other even while others (perhaps entirely lacking spatial parts) are each spatially "isolated" – each

“comprising its own world,” so to say.) Finally here, I should say this: First, such thoughts as those are concretely substantial ideas. Second, each of them has a correlative thought that adverts to concrete worlds. Third, there’s this easily misunderstood point: Each of the correlatives is also a concretely substantial idea. Fourth, and undoing any such understanding, there’s this: The difference between the initial ideas, between eschewing concrete worlds and embracing such worlds, is a concretely empty difference.

## **2. Are There ANY Properties or just Propertied Individuals?**

In the Introduction to Volume I of his *Philosophical Papers*, Lewis provides a brief list of “recurring themes that unify the papers in this volume”.<sup>4</sup> Right now, it will be best for us to go no further than what, with good reason, occurs first on his list:

Extreme modal realism, according to which there are many unactualized possible individuals, and according to which the actual individuals do not differ in kind from the unactualized ones.<sup>5</sup>

Pretty obviously, I think, Lewis means very little here by “do not differ in kind from”. Indeed, it’s pretty obvious that about all he means to convey is something like this: Even as the actual individuals really are (concrete) individuals – and (maybe) as such, they’re concrete particulars – so all the many unactualized possible individuals *also really are* (concrete) individuals – and (maybe) as such *they’re* concrete particulars. The unactualized individuals aren’t just some (abstract) templates for how an individual should be, for example.<sup>6</sup>

Anyhow, it’s perfectly obvious that Lewis holds that there are actual individuals (or, at the least, there’s at least one actual individual.) In holding this, Lewis disagrees with, among others, the Nihilist about Material Individuality, whom we encountered early in the previous chapter. And, he’ll similarly disagree with a Nihilist about Immaterial Individuality (who may allow that

there's immaterial spiritual stuff, but no immaterial entities at all). And, perhaps, there are still others with whom he'll disagree. (Now, as I'm inclined to think, in all these parallel disputes, Lewis will be right and these extreme nihilists will be wrong. And, as I'm more than just inclined to think, these disputes concern only concretely empty issues.)

Whatever it amounts to, then, it's fair to say that, at a bare minimum, Lewis holds there are concrete individuals. In this, he agrees, of course, with almost all other prominent mainstream philosophers. Having settled on that, this question arises: Are the concrete individuals absolutely all there is (in, or of, or to, reality)? Or, in addition to all its concrete individuals (or concrete) reality, does reality *include something else*, so to say; does reality *comprise other things as well*, so to put it? Some will answer "Yes" to our first question here, answering "No" to the second. Let's say that each of them is a *Concrete Individualist*. Truth to tell, I'm (unconfidently) inclined to agree with these Concrete Individualists (even if our agreement might concern only some concretely empty issues).

It's pretty clear that Lewis denies Concrete Individualism, upholding an opposing view, or maybe even several opposing views. Let's discuss that.

As it appears, there are two main ways to disagree with our Concrete Individualist, each both saliently paralleling the other and also differing from the other. First the parallel: On each of these ways, one will say that, in addition to all the individuals, there are *properties*, which properties (at least some) individuals may have, or may possess.

Now, the difference: On the first of our ways, quite salient for Lewis, one will hold that for an individual to have a certain property is just for the individual to be a member of a certain set of individuals, absolutely all the individuals (properly enough regarded as) having that property:

We have frequent need, in one connection or other, to quantify over properties. If we believe in possible worlds and individuals, and if we believe in set-theoretic constructions out of things we believe in, then we have entities suited to play the role of properties.

The simplest plan is to take a property just as a set of all its instances – *all* of them, this- and other-worldly alike. Thus the property of being a donkey comes out as the set of all donkeys, the donkeys of other worlds along with the donkeys of ours.<sup>7</sup>

If we hold that, in addition to the individuals, there are also properties, and if we treat properties as (being certain) sets, as Lewis has done, then perhaps we may disagree with our Concrete Individualist in a way that, as it may appear, isn't all that radical. For, on this way, we may all agree, perhaps, that all there is to *concrete* reality are all the concrete *individuals*. In such a circumstance, the disagreement will be this: While our Concrete Individualist holds that all there is to reality is concrete reality, her salient opponent holds that there's *more to reality than concrete reality*. Amplifying, for that opponent, absolutely all reality includes, in addition to all concreta, at least certain abstracta. That's enough, I trust, about the first main way to disagree.

On the second way, quite salient in the metaphysics of David Armstrong, and perhaps that of Aristotle, we take it that there is *more to concrete reality than just its individuals*, however variously propertied (and related) they may be.<sup>8</sup> In addition to all the propertied concrete individuals, there are the *concrete properties of* these individuals.<sup>9</sup> Aptly enough, Armstrong calls these (alleged) concreta *universals*. When contrasting his view with Armstrong's, Lewis conveniently reserves the word "property" for the sets of individuals he so favors, and uses "universal" as a term *contrasting with* "property". Here is Lewis again, now expounding on Armstrong's view while contrasting it with his own:

Universals and properties differ in two principal ways. The first difference concerns their instantiation. A universal is supposed to be wholly present wherever it is instantiated. It is a constituent part (though not a spatiotemporal part) of each particular that has it. A property, by contrast, is spread around. The property of being a donkey is partly present wherever there is a donkey, in this or any other world. Far from the property being part of the donkey,

it is closer to the truth to say that the donkey is part of the property. But the precise truth, rather, is that the donkey is a member of the property.

Thus universals would unify reality ... in a way that properties do not. Things that share a universal have not just joined a certain class. They literally have something in common. They are not entirely distinct. They overlap.<sup>10</sup>

As it often appears to me, when Lewis tries to show how his position and Armstrong's differ dramatically, almost all that's advanced are some strangely suggestive metaphors.

Nor do the standard treatments of those empty issues stop with the positions just noted. In a somewhat roundabout way, I'll present another of the major players here, the so-called *theory of tropes*, showing how it may be related to the other standard positions, and to (my preferred view of) Concrete Individualism.

Very sensibly, I think, Lewis is concerned to focus on how things are *perfectly naturally* with concrete individuals, or at least relatively naturally, and have us place to the side, when doing serious metaphysics, how things are less naturally with our concrete particulars. For example, we do well to focus on how it is perfectly specifically electrically with certain a certain particle – say, the particle is electrically charged to such-and-such perfectly specific degree, even as we do well to and place to the side the question of whether the particular particle has been (indirectly) observed by a scientist. (Though the example is far from perfect, I'm sure you get the point.) Now, Lewis would very much like to articulate the distinction between what it is that we focus on when properly doing things seriously here and, by contrast, what else we might focus on, presumably then not doing such serious thinking so properly. (Though I have little interest in such a project, it's certainly understandable that a philosopher should engage in it.)

Lewis believes that, when it's elaborated aptly, his conception of properties, as certain absolutely inclusive sets of individuals, is adequate to (play a central role in) articulating the distinction between the *perfectly natural and the not so natural*, and the distinction between

what's *more natural than* what else. But, he *doesn't* think that it's clear his treatment of these issues is to be preferred to all others. Rather, he's prepared to give high marks, as well, to two alternative positions. Already encountered, one is Concrete Universalism. Here is Lewis on (what he appears to take as) the remaining major player:

... The other is a theory of tropes, more or less as in D. C. Williams' 'On the Elements of Being', but made sparse in a way that imitates Armstrong's theory. In the contest between these three alternatives – primitive naturalness, universals, or tropes – I think the honors are roughly even, and I remain undecided.

The difference between universals and tropes comes when we consider two instances of the same perfectly natural property – for instance, two particles each having unit positive charge. Each one contains a non-spatiotemporal part corresponding to charge. But if this non-spatiotemporal part is a universal, then it is the same universal for both particles. One and the same universal recurs; it is multiply located; it is wholly present in both particles, a shared common part whereby the two particles overlap. Being alike by sharing a universal is “having something in common” in an absolutely literal sense. If the non-spatiotemporal part whereby a charged particle is charged is a trope, on the other hand, then there are different tropes for different charged particles. There is no recurrence, no sharing of multiply-located part. Instead, we say that the charge-trope of one particle and the charge-trope of another are *duplicate* tropes, in a way that a charge-trope and a mass trope, say, are not.<sup>11</sup>

Now, Lewis is well aware that, just as the theory of universals may apply to complex nonbasic individuals, replete with many less than perfectly natural properties - or at least there's nothing in that theory itself to prevent that - so the theory of tropes may also apply ever so widely - or at least there's nothing in *that* theory to prevent *that*.

For quite a few, I imagine, a homey illustration will be helpful: Well, we've talked of talked of donkeys, certainly not any basic individuals, and we've talked of the property of being a donkey, certainly not any perfectly natural property. Now, let's consider two particular donkeys, one *Don*, as we'll call him, and the other *Dan*. And, let's suppose that, as with most actual donkeys, Don is grey and Dan is grey. These grey donkeys will be happily illustrative.

Recall that we've canvassed three currently-standard views on properties, and we've also noted the nihilistic position on properties, Concrete Individualism. Let's notice what these views will say about our grey animals, and then note what our nihilist will say.

Lewis's treatment of properties as aptly inclusive sets will say that Don has the property of being grey, which property amounts to Don's being a member of the set of absolutely all grey individuals, and Dan also has the property of being grey, which amounts to *Dan's* being a *member of that very same set of* individuals.

The Concrete Universalist, as with Armstrong, and perhaps also Aristotle, will say that, in his being grey, Don instantiates the immanent concrete universal of grayness (perhaps a certain non-spatiotemporal part of Don) even as in *his* being grey, *Dan instantiates this very same* immanent universal (perhaps a very similar part of Dan). So, this grayness is, in the first place, wholly present in Don and, in the second place, it's also wholly present in Dan.

The Trope Theorist, as with Williams, and perhaps also Locke, will say that, in his being grey, Don has his very own particularized grayness, perhaps a non-spatiotemporal part of Don, which is present nowhere else at all, nowhere, that is, where Don is not. And, she'll say that, in *his* being grey, *Dan will have his very own particularized* grayness, perfectly distinct from Don's grayness. Just so, Dan's grayness is only exactly where *Dan* is; it's certainly *not* over there, where Don is, and where Dan is not.

Finally, the Nihilist here, our Concrete Individualist, will say that, in all of this, all that's there, really, are Don, who is grey, of course, and also Dan, who is also grey, of course. There are no sets of grey individuals, perhaps because there aren't, really, any sets at all. And, there aren't any properties *otherwise understood*; there aren't any universals, or any tropes, and so on. In reality here, there are just the two grey donkeys, full stop.

Now, try as I might, I find no concretely substantial difference between any of the positions lately noted, including even between all the presumably quite various friends of properties and, on the other side, our nihilistic Concrete Universalists. Any difference among, or between, any of these views is a divergence, it appears, that's only a concretely empty difference. But perhaps this is as it should be. For, aren't the issues here, however differently addressed, just so many concretely empty issues.

It's perfectly possible, I suppose, that Lewis would agree that, in the whole topic area, none of the issues I've just been highlighting are concretely substantial questions and, so, they're all concretely empty matters. Even in such an event, I imagine, he'd think that these are philosophically quite important issues, anyway. And, as I also imagine, Armstrong and Williams would concur, as would many others. As it appears, then, they'll all think something a lot like this: Intertwined with these questions, there are questions of which *philosophical accounts* will be available, and which *philosophical analyses*, on one or another of the noted metaphysical views, for various *relevantly general and fundamental phenomena* - along with questions about the (at least relative) value of the variously available accounts and analyses. Here is Lewis on all that, comparing his view with the two others we've noted:

I would willingly accept the distinction [between natural and unnatural properties] as primitive, if that were the only way to gain the use of it elsewhere in our analyses. The contribution to unity and economy of theory would be well worth the cost. But I think there are two attractive alternatives: theories which, for some price both in ontology and in primitives, give us resources to analyze the distinction without foregoing any of its applications.<sup>12</sup>

About all that, I'm quite skeptical (though my skepticism certainly isn't written in stone). For one thing, and quite specifically, I see no reason to think that a more economical or more unified theory (of these concretely empty matters) is more likely to be *correct* than one that's less

economical, or less unified, or both. For another, and more generally, I don't think that what humans can accomplish with certain resources, as against certain other resources, is an accurate guide to how things are with reality itself.

Apparently contravening the alleged desiderata, there's an (apparently) ontologically generous (concretely empty) position, incorporating all the positive posits of our three positive approaches and, accordingly, well-called *Property Ecumenicalism*. On this Ecumenical view, all this will hold true of Don and Dan: First, Don is a member of the set of absolutely all grey individuals, both all the many actual grey individuals and also all the very many more merely possible grey concrete particulars, and, of course, so is Dan. Second, Don instantiates the immanent concrete universal of grayness, perhaps a certain non-spatiotemporal part of Don, even as Dan also instantiates this universal, perhaps also a peculiar part of Dan. (Owing to that, perhaps it may be said that, in a quite peculiar non-spatiotemporal way, Dan and Don overlap.) Third, Don has his very own particularized grayness, perhaps another, quite different non-spatiotemporal part of Don, which special part is present only where Don is, and nowhere else at all, where Don is not; likewise Dan has *his* very own particularized grayness, perfectly distinct from Don's grayness, and present just where *Dan* is. (So, if Dan and Don overlap, it *won't* be owing to this *last* fact that they do.)

As indicated, the differences between this Property Ecumenicalism and the other views lately are concretely empty. But, though empty, might some of these differences be *important*?

According to Lewis, there is a *contest* among theories of properties (one that's closed, of course, to our Nihilist here). Just before, we saw him say this about that: "In the contest between these three alternatives – primitive naturalness, universals, or tropes – I think the honors are roughly even, and I remain undecided." If there is a contest here, then how important a

contest is it? Apparently, Lewis considers it to be at least quite important.<sup>13</sup> But, to favor the thought that there's a contest of much importance here, I can see nothing to be said that's very compelling, or even anything very interesting.

Anyway, how does our Property Ecumenicalism fare in this contest? Does it fare far worse than do all the less generous contestants? If so, then, exactly why, really, does our ecumenical view fare so very badly? To favor the thought that it does, I can see nothing to be said that's very compelling, or even anything very interesting.

### **3. The Temporal, the Empty and the Substantial: First Part**

Until about a century ago, almost all philosophers, along with almost everyone else, held that very many things that once existed, like Plato's hair and Plato's heart, don't exist anymore. Unlike individual electrons from millions of years ago, each of which still do exist, those others simply don't exist, full stop, and that's that.<sup>14</sup> In a nutshell, the only concreta that exist (full stop) are those that exist *now* (at the time of my inscription's production, so to say). Nowadays, that's recognized as just a certain position on matters concerning (existence and) time, a position that's often called "Presentism", though it goes, or its allied positions go, under various other names as well, as with "Three-Dimensionalism". Even nowadays, Presentism and its allies has its prominent proponents, each more or less influenced, perhaps, by the admirable A. N. Prior and including, among others, Kit Fine, John Bigelow, Dean Zimmerman.<sup>15</sup> But, at least as far back as Bertrand Russell, and including, among others, Hans Reichenbach, W. V. Quine, D.C. Williams, J. J. C. Smart, David M. Armstrong and Theodore Sider, that happily ordinary way of thinking about temporal matters has largely fallen out of favor with most mainstream

philosophers.<sup>16</sup> Most pertinent in this chapter, among those rejecting Presentism and favoring Eternalism is David Lewis.

According to these Eternalists, Plato's hair and his heart (tenselessly?) *do exist*, though they *don't exist now*, and they *don't exist at present*. And, according to these same thinkers, many *future* things also (tenselessly?) *do exist*, like the hair and heart of a certain great-great-grandchild of one of my students, though that hair and that heart *don't exist now*, and they *don't exist yet*. The view I'm calling "Eternalism" is often so called, though it also under various other names as well, as with "Four-Dimensionalism" – or, at least, those are names for views closely allied with Eternalism. Nowadays, this Eternalism, and its allied views, is mainstream philosophy's dominant view..

Between Presentism and its allies, on one hand, and Eternalism and its allies, on the other, there are, I imagine, several at least potentially distinguished issues that are disputed. Are all of these issues concretely empty matters? Very impressed by the just previous section, one might well think that I'll answer "Yes" to that question. But, I won't. While I think that most such disputed temporal issues are just so empty, there's at least one that's almost certainly concretely substantial. With that said, it's time to get down to some detailed argumentative business.

As with almost everything in this chapter, when doing our detailed business we look first to Lewis's work. In arguing for Eternalism, or a close ally of the view, Lewis provides this:

... Let us say that something *persists* iff, somehow or other, it exists at various times; this is the neutral word. Something *perdures* iff it persists by having different temporal parts, or stages, at different times, though no one part of it is wholly present at one time; whereas it *endures* iff it persists by being wholly present at more than one time. Perdurantism corresponds to a way a road persists through space; part of it is here and part of it is there, and no part is wholly present at two different places. Endurance corresponds to the way a universal, if there are such things, would be wholly present wherever and whenever it is instantiated. Endurance involves overlap: the content of two different times has the enduring thing as a common part. Perdurantism does not.<sup>17</sup>

That's little more than just the introduction of some technical terminology. It's not the favoring of any view, much less any argument in support of any position. Now, couched in that terminology, I'll display an argument Lewis gives for the thought that persisting concreta always do that by perduring, never by enduring. Here's his "argument from temporary intrinsics":

The principal and decisive objection against endurance, as an account of the persistence of ordinary things such as people or puddles, 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.

First solution: contrary to what we might think, shapes are not genuine intrinsic properties. They are disguised relations, which an enduring thing may bear to times. One and the same enduring thing may bear the bent-shape relation to some times, and the straight-shape relation to others. In itself, considered apart from other things, it has no shape at all. And likewise for all other seeming temporary intrinsics; all of them must be reinterpreted as relations that something with an absolutely unchanging intrinsic nature bears to different times. The solution to the problem of temporary intrinsics is that there aren't any temporary intrinsics. This is simply incredible, if we are speaking of the persistence of ordinary things. ... If we know what shape is, we know that it is a property, not a relation.

Second solution: the only intrinsic properties of a thing are those it has at the present moment. Other times are like false stories; they are abstract representations, composed out of materials of the present, which represent or misrepresent the way things are. ... This is a solution that rejects endurance; because it rejects persistence altogether. And it is even less credible than the first solution.

Third solution: The different shapes and the different temporary intrinsics generally, belong to different things. Endurance is to be rejected in favor of perdurance. We perdure; we are made up of temporal parts, and our temporary intrinsics are properties of these parts, wherein they differ from one another. There is no problem at all about how different things can differ in their intrinsic properties.<sup>18</sup>

As he makes quite clear, Lewis greatly favors the third solution, taking that to be the kernel of "the decisive objection against endurance".

What are we to make of this? Well, in the first place, there's next to nothing here that's concretely substantial. But, in the second place, there's a little bit that is. What's that? Well, however dominant it may look as compared with its rival, or rivals, it's just one way for concrete reality to be that (it should include at least one world wherein) its concrete individuals, or at least some of them, ever should change. Indeed, within this apparently dominant way, it's just one way for concrete reality to be that (it should include at least one world wherein) its concrete individuals, or at least some of them, ever change qualitatively, or intrinsically, or nonrelationally. Well, then, we've just observed some concretely substantial points, and not points that are merely parochial propositions. What should we say about them?

In this context, perhaps the first thing to say is that these points are, at the very most, merely presupposed by Lewis, never articulated by him, much less advocated. More importantly, however, we should observe that these points are, by most relevant measures, very small points and, accordingly, there not thoughts of any great philosophical import. With that said, we've properly observed these substantial ideas and, at the same time, given them just their just due, no more than they're due. And, with *that* said, we may observe that, in the passages on time displayed just above, Lewis provides us with no concretely substantial material, but presents, instead, on some analytically empty ideas.

With the previous paragraph's last sentence, I've expressed this section's most important point, preeminent by a very large lead. Still, there's a lot more to be said here, even if none of it is of the first importance. Here's some of that lot: As against Lewis, *I haven't any intuition at all that shape is an intrinsic property* of (shaped) concreta in a sense of "intrinsic" that precludes relations to all manner of whatnots, with the like of mere *times* included (whatever exactly a particular *time* might be). By contrast, if we restrict our allowed relata to concrete individuals, or

to certain concreta, then I do have the intuition that shape is an intrinsic property. It's quite strongly intuitive, I'll agree, that how it is that I'm shaped, or how it is that my body's shaped, is strikingly independent of how things are shapewise with any other people, or with the bodies of all other people. But, with times, not bodies, I draw a blank. So should everyone, I think.

(Almost too good to be true, this sensible line of mine is more than borne out by recent work from a couple of sharp young analytic metaphysicians: First, and quite recently, Bradford Skow seriously questions whether shape is an intrinsic property, in any useful or sustainable sense of "intrinsic", offering arguments for his skepticism.<sup>19</sup> Next, and even more recently, Kris McDaniel positively holds that shape isn't an intrinsic property, offering arguments for that position.<sup>20</sup> Much as one would expect, with both authors the candidate relata featured, the featured candidates for a shaped individual to be related to, aren't anything like other shaped individuals. In the case of McDaniels, to get specific here, it's something like spatial regions that each spatially shaped material object must be aptly related to, for each material object to have whatever shape it does have.)

Recollection of the previous section's Ecumenical Propertyist leads to a final point of commentary on the Lewisian passages just lately cited. We start with just some emphatic labeling: One who says that persisting objects persist by perduring will be called a *Perdurantist* (about persisting concrete particulars). And, one who says they do that by enduring will be called an *Endurantist*. Enter another philosopher, an *Ecumenical Persistentist*. On the *Standard Version of Ecumenical Persistentism*, each persisting concretum always persists *both by enduring and also by perduring*: A persisting table itself is wholly present at every time throughout which it persists, even while the table is composed of temporal parts each present at only an instant of, or each present during only a certain period of, the time throughout which the table persists, with

different instants for, or with different periods for, each of the different temporal parts. So, on this Standard Ecumenical Persistentism, each persisting particular will be quite a “busy” persisting individual, always doing double duty, as it were, throughout its entire career.

By contrast with that, *another sort of Ecumenical Persistentist won't* have any persisting individual doing that much. Just so, on a *Divergentist Ecumenical Persistentism*, even while all persisting particulars must either perdure or else endure, only some will do the one thing, say, they'll all be perduring, even while the others do otherwise, with these others all enduring. So, on this Divergentist Version of Ecumenical Persistentism, any of the many persistents that persist by enduring won't ever persist by perduring, and any of the many other persistents will persist just by perduring, never persisting by enduring.

So, now we have four positions concerning a certain issue about how it is that ever so many concrete particulars persist: Perdurantism, Endurantism, and two types of Ecumenical Persistentism. On this issue, each position conflicts with the three others. But, what sort of issue about persistence can this be, really? Is it a concretely substantial issue? I don't think so. Rather, it's an issue that's concretely empty. And, even as the very intelligibility of this issue is quite questionable, so the importance of the issue is precious little, indeed.

#### **4. The Temporal, the Empty and the Substantial: Second Part**

If there is a concretely substantial difference between Presentism and Eternalism, or between Three-Dimensionalism and Four-Dimensionalism, it's not to found in the issues debated by Endurantists and Perdurantists (and any other parties to that debate). But, mightn't such a substantial difference be found elsewhere? Perhaps so; but then where is it to be found? In this

section, I'll argue that there is indeed a concretely substantial difference between Presentism and Eternalism, and it is in their treatment of the future where that the difference is to be found.

Regarding the past, it is quite questionable, to my mind, that there's any substantial difference between these two views. Both parties agree that, for example, it is fully true that dinosaurs roamed the earth millions of years ago. To be sure, the Presentist will talk and think about this in a certain way, while the Eternalist will talk and think about it in another way. And, at first blush, it may appear that, with each of these different ways of talking and thinking, there's offered a view that's substantially different from what's offered with the other way. But, as I'll argue, any such appearance is illusory. Without further ado, let's explore the matter.

For her part, the Presentist will thoughtfully say such things as these: Though dinosaurs no longer exist, many used to exist and, when they existed, many roamed certain parts of our planet's surface while many others roamed other parts. And, she may go on to say such things as these: Right now, no dinosaurs exist and, in recent years, none have existed. So, of course, both currently and recently, there's not been any dinosaur roaming our planet.

For his part, the Eternalist will thoughtfully say such other things as these: Though dinosaurs don't exist now or, indeed, at any time during the most recent million years, they (tenselessly) exist at times each millions of years ago, that is, millions of years before the time of this very vocal utterance. To express just what's most relevant and most unquestionably real here, the Eternalist will typically say, we may use a *tenseless sense of, or form of*, "exist", and of "be", along with dating and timing locutions that (tenselessly) let us say when it (tenselessly) is that certain concreta (tenselessly) exist, or when there (tenselessly) are those concreta. So, millions of years before this inscription is (tenselessly) produced, dinosaurs (tenselessly) exist, and they (tenselessly) roam the earth then, when they (tenselessly) exist.

Responding to this, the Presentist says that there aren't any such tenseless senses of, or forms of, "exist" and "be", and any other naturally available constructions featuring verbs. Even when it comes to purely arithmetic statements, scarcely concerned with any concreta, that's how it is. Just so, when it is said that two and three make (or sum to) five, the only real sense of that is the same as the single sense of what's stated when it's said that two and three now make (or sum to) five. If we want properly to say that this arithmetical relationship, between the three numbers, will hold irrespective of what the time may be, or what temporal perspective is salient, then we use *all* (three) of our tenses, *not none* of them. So, properly, we should say that two and three always *did* make five, *and* they now *do* make five, *and* they always *will* sum to five.

Of course, the Eternalist can forswear any attempt to coo ordinary expressions. Instead, he can construct, completely from scratch, a tenseless way of talking and, with that, a tenseless way of thinking. But, for her part, the Presentist will be ready with replies. First, she may say that, even at best, there's no productive point in doing any such thing. Second, she may say that, rather worse than that, there's this to realize: Insofar as it's foisted on us, such a tenseless way of talking and thinking will have us (at least tend to) "spatialize time", thus (tending to make or) making obscure to us the deeply *dynamic* aspect of concrete reality or, perhaps better, the deep dynamism of any concrete reality that, not being utterly monotonous, features some change., that is some change over time, or some change with respect to time.

But, of course, the Eternalist will have his reply to that response from the Presentist. And, of course, she'll have her rejoinder to that response of his. And, so it will go - on and on and on, without any logical limit. But, beyond parochial propositions about who uses which words, and about which concepts are ordinarily employed by ordinary people, is there anything concretely substantial at stake in any such interminable discussion? I doubt it. Let me amplify.

Though the typical Eternalist doesn't like to use tensed constructions, and he deplores our using expressions like "the past", "the present", and "the future", in any ordinary sense or way, he'll agree with the Presentist about many metaphysical temporal matters. For one very large thing, here put pretty metaphorically, our Presentist and our Eternalist will agree that "what's past is already fixed and determined; it's a done deal which cannot possibly be undone". Of course, the Eternalist won't put his agreeing thought in such words as those. But, amounting to much the same, he may well say something like this: Anything that (tenselessly) happens before I'm (tenselessly) very vocally expressing this very thought of mine is (tenselessly) completely beyond any change, modification, prevention or undoing. As regards any matter concerning occasions before the time of this newer very vocally expressed thought, there's a fact of the matter, one way or the other. So, for example, as regards the matter of whether, when a boy, Abe Lincoln was ever friends with a boy named "David" or, here much the same, the matter of whether, when a boy, Lincoln (tenselessly) has a young male friend named "David", there is a fact of that matter. Just so, either Abe then had or (tenselessly) has such a friend, or else he didn't or (tenselessly) doesn't. Perhaps, nobody will ever know which (and, indeed, let's suppose that to be so). But, that makes no difference. Either Abe was friends with a young "David" or else he wasn't. Either the one is a fact or else the other is. Whichever is the fact of the matter, it's a done deal, so to say, with no possibility of any undoing.

Just so, on all matters concerning what took place before their present brief discussion, the Presentist and the Eternalist will be, most deeply, in full agreement. At such-and-such a very early time, there were, or there (tenselessly) are, so-and-so beings doing this-and-that, as they both agree. At so-and-so only somewhat later time, there were, or there (tenselessly) are, those-and-these beings doing A-and-B, as they also both agree. And so on, for everything that

ever took place, or ever (tenselessly) takes place, in what, as the Presentist has it, is in the past. Insofar as they dispute what's what about occurrences at any such earlier times, what can be going on with the debate they'll be having? Myself, I can see no concretely substantial difference between what the Presentist holds here and what the Eternalist holds. Is that just an eccentric inability of mine?

Not at all, I believe. And, to persuade you of that, I'll move to a parallel debate between our two featured parties, this one regarding not the past but the (at least so-called) future.

It is a fact, I assure you, and that I have a son, my one and only child. And, it is also a fact that my son has no children and, in consequence, I have no grand-children, not even a single one. Now, just insofar as her Presentism goes, what must our Presentist hold about the question of, or the matter of, whether (or not) I will have at least one grandchild? Unlike what she must hold about matters regarding the past (and matters regarding the present, too) she may well hold that, concerning this matter, there *isn't any fact of the matter*. Putting much the same point in different words, she may well hold that it's not *true* that *either I will have at least one grandchild or I won't*. Rather than endorsing that incorrect idea, we should uphold these two "conjunctive" thoughts instead: First, *it's not true that I will have at least one grandchild and it's also not true that I won't have at least one*. And, second, *I might have at least one grandchild and I might not have any at all*. Just so, the matter in focus is an *open* question; the matter at hand is a (*factually*) *indeterminate* matter.

(Now, along with their Presentism, some (few) Presentists may be *Strictly Complete Determinists*. These few Presentists will hold that, as regards every matter concerning the future, it's (already) fully determined exactly how that matter will develop, or will "play out". *These* Presentists *won't* hold that matters regarding the future (or at least some such matters) are open

matters; they *won't* hold that they're factually indeterminate: Either (as has already been fully determined) I will have at least one grandchild or else (as has already been fully determined) I will not. But, please notice this: The "hard line" taken by these Presentist Determinists is *wholly due to their Strictly Complete Determinism*; it's *not due to their Presentism*, not at all.)

Opposed to our Presentist, our typical Eternalist thinks oppositely. Even just insofar as his Eternalism goes, he holds, as he must do, that, as regards the matter of my coming to have a grandchild, there's a fact of the matter. Just as the past is factually fully determinate, and there is nothing even remotely like an open past, so the future is also factually fully determinate and there's nothing even remotely like an open future. Against the Presentist, the Eternalist holds that there are no alternative possibilities for the course of our (actual) world's development. Just as everything about the world before this current thought (or right now) is fully fleshed out, quite absolutely specifically, so everything about our world after this same thought (or right now) is fully fleshed out, quite absolutely specifically, as well.

This difference between Presentism and Eternalism is, I believe, a concretely substantial difference between the two views. As well, it's an important difference between them, on almost any reasonable standard for what's important. One way that the two views differ importantly, and in a way that's concretely substantial, is this: According to Eternalism, even as there are no alternative possibilities for the course of our (actual) world's development, so there are no alternative courses of thought or action available to, or for, any (actual) individuals, none for you, and none for me. So, even if there may be some (quite anemic) sense of "choose" that's liberal enough to have Eternalism allow each of us (at least sometimes) to choose, Eternalism won't ever allow any of us ever to choose *from among actually available alternatives for our thoughtful activity*. By contrast, Presentism has no such stultifying consequence. Rather, even

as Presentism allows that there be alternative possibilities for the course of our (actual) world's development, so it allows that there are alternative courses of thought and action available to, or for, many (actual) individuals, some for you, and some for me. (Presentist *Determinists* won't allow us that; but, then, it's their Determinism, and it's not their Presentism, which would rule out, for all of us, any choosing from actually available real alternatives.)

### **5. The Temporal, the Empty and the Substantial: Third Part**

A third position should be mentioned here, one that's been called *The Growing Block View*, and *the Growing Universe View*.<sup>21</sup> Though not nearly as popular with mainstream philosophers as Eternalism or even Presentism, it is the only other "grand view" that, in the recent literature, is discussed with any frequency and, in mainstream metaphysics courses, is discussed with any regularity. Fairly recently a view of this sort has been vigorously defended in Michael Tooley's *Tense, Time and Causation*.<sup>22</sup> In analytic philosophy's early days, it was vigorously upheld by C. D. Broad. Here is a pertinent passage from Broad's *Scientific Thought*, perhaps the locus classicus for the Growing Block View:

It will be observed that such a theory as this accepts the reality of the present and the past, but holds that the future is simply nothing at all. Nothing has happened to the present by becoming past except that fresh slices of existence have been added to the total history of the world. The past is thus as real as the present. On the other hand, the essence of a present event is, not that it precedes future events, but quite literally that there is *nothing* to which it has the relation of precedence. The sum total of existence is always increasing, and it is this which gives the time-series a sense as well as an order. A moment *t* is later than a moment *t'* if the sum total of existence at *t* includes the sum total of existence at *t'* together with something more.<sup>23</sup>

Using terribly vague and largely just gestural language, but here also helpful language, we may express the main thrust of our three competing views in much the same terms that Broad employed: The Presentist holds that only the present is real, while the past and the future are not.

Almost oppositely from that, the Eternalist holds that the past, the present and the future are all real, without giving even the slightest favoritism to any one of the three. Between those almost wholly opposite views, the Growing Universe Theorist holds that, while both the past and the present are real, the future is not.

For this essay's present purposes, the main point to notice about these three views is this: While there may well be a concretely substantial difference between Presentism and Eternalism, with the first allowing that there is an open future, and with the second denying just that it, it may well be, as I believe, that none between Presentism and the Growing Universe View there's no concretely substantial difference at all. Even as the former position allows that there should be real alternatives each actually available, the latter view also allows that. Finally for now, and also quite obviously, there may well be, and I think there is, a substantial difference between Eternalism and the Growing Universe View. Of course, it's the very same concretely substantial difference holding between Eternalism and Presentism.

## NOTES

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<sup>1</sup> David Lewis, *On the Plurality of Worlds*, Blackwell, 1986, p. 1.

<sup>2</sup> Lewis, *On the Plurality of Worlds*, p. 2.

<sup>3</sup> Jonathan Schaffer, “Monism: The Priority of the Whole”, *Philosophical Review*, Vol. 119, N. 1, 2010, pp. 33-34. Where I’ve put an asterisk, Schaffer cites, as relevant nihilists, Gideon Rosen and Cian Dorr, “Composition as a Fiction,” *The Blackwell Guide to Metaphysics*, ed. Richard Gale, Blackwell, 2002. Where I’ve put a double asterisk, he cites, as a relevant organicist, Peter van Inwagen, “who embraces the consequence that there is no world, paraphrasing ‘the world’ as a plural term.” That citation directs us to page 127 of the Second Edition of van Inwagen’s *Metaphysics*, Westview Press, 2002.

<sup>4</sup> David Lewis, *Philosophical Papers*, Volume I, Oxford University Press, 1983, p. xi.

<sup>5</sup> Lewis, *loc. cit.*

<sup>6</sup> He can’t mean anything with much more punch than that. For example, he can’t mean that, even as all the actual individuals are material (or physical) individuals, so the unactualized individuals are also material (or physical). For he wants to allow, of course, that among the unactualized individuals there are (or there may be) spirits, and deities, and even Berkeleyan minds, I suppose, and he doesn’t want to say that these are all material (physical). (And, he’s quite prepared to agree that, in almost any (other) context, we should say that material individuals *differ in kind from* such spirits, deities, and Berkeleyan minds immaterial.

<sup>7</sup> Lewis, *On the Plurality of Worlds*, p. 50.

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<sup>8</sup> See D. M. Armstrong, *Universals and Scientific Realism*, Cambridge University Press, 1978.

<sup>9</sup> And, there are the relations in which, typically, each of many concreta stand, with respect to each of many other concrete individuals.

<sup>10</sup> David Lewis, “New Work for a Theory of Universals,” *The Australasian Journal of Philosophy* 61 (1983), pp. 343-377; reprinted in David Lewis, *Papers in Metaphysics and Epistemology*, Cambridge University Press, 1999, pp. 8 – 55. In the reprinted paper, the material cited is on pp. 10-11.

<sup>11</sup> Lewis, *On the Plurality of Worlds*, p. 64. A fuller reference to Williams goes as follows: Donald C. Williams, “On the Elements of Being”, *Review of Metaphysics*, 7 (1953), pp. 3-18 and 171-92.

<sup>12</sup> Lewis, *On the Plurality of Worlds*, pp. 63-64.

<sup>13</sup> And, Lewis is hardly alone here. For a salient example of much the same thing, we can turn to Armstrong’s *A World of States of Affairs*, Cambridge University Press, 1997. On page 22 of that work, Armstrong writes:

In my view, the last battle between Nominalism and realism (the Grand Final) should be fought between trope theorists (of various sub-types) and Aristotelian realists (also of various sub-types).

When I note that Armstrong’s Aristotelian realists are our Concrete Universalist, we readily realize that, first, his last battle is our noted contest and, second, he thinks it’s a very important contest. (Unlike Lewis, Armstrong doesn’t think that, in addition to all the grey donkeys of the actual world that simply walk, there are the purple donkeys of other worlds, which both walk and also fly. So, like almost everyone else in mainstream

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philosophy, he doesn't give high marks to Lewis's properties-as-absolutely-inclusive-sets approach. But, excepting that, there's precious little difference between the two here.)

<sup>14</sup> My source on this, historically reliable in the main, I think, is John Bigelow, "Presentism and Properties", *Philosophical Perspectives*, 10, Metaphysics, 1996, pp. 35-52. Most of the historically most relevant stuff is on the first page of the paper.

<sup>15</sup> Among A. N. Prior's writings on behalf of Presentism are his "Thank Goodness That's Over", *Philosophy*, Vol. 34, No. 128 (Jan., 1959) pp. 12-17, his "The Notion of the Present", *Studium Generale*, 23 (New York: Springer-Verlag, Inc., 1970) pp. 245-248, and his "Some Free Thinking about Time", in B. J. Copeland (ed.), *Logic and Reality: Essays on the Legacy of Arthur Prior*, Oxford University Press, 1996, pp. 47-51. John Bigelow defends Presentism in his "Presentism and Properties", *Nous*, Vol. 30, Supplement: Philosophical Perspectives, 10, Metaphysics, 1996, pp. 35-52. Kit Fine defends this intuitive view in his "In Defense of Three-Dimensionalism" first published in the *Journal of Philosophy*, Vol. CIII, No. 12, December, 2006, pp.699-714. Dean Zimmerman defends Presentism in his "Temporary Intrinsic and Presentism", first published in Peter van Inwagen and Dean Zimmerman (eds.), *Metaphysics: The Big Questions*, (Oxford: Basil Blackwell Publishing, 1998) pp. 206-219. In another way, and more recently, he does that in his "The Privileged Present" Defending an 'A-Theory' of Time", in Theodore Sider, John Hawthorne and Dean Zimmerman (eds.), *Contemporary Debates in Metaphysics*, (Oxford: Basil Blackwell Publishing, 2008) pp.211-225.

<sup>16</sup> The first few of these Eternalist authors are cited as such in John Bigelow's "Presentism and Properties". On the paper's first page he writes: "Russell, Reichenbach, Smart, Quine, Lewis and many other anglophonic, analytic philosophers also denied Presentism

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... ” For Bertrand Russell, the works cited are “On the Experience of Time”, *The Monist*, 25 (1915) pp.212-223, *Human Knowledge: Its Scope and Limits*, Simon and Schuster, New York, NY, 1948, and *Mysticism and Logic*, Unwin Books, London, UK, 1963. For Hans Reichenbach Bigelow cites, among his other works, *The Direction of Time*, M. Reichenbach (ed.), University of California, Press, Berkeley, CA, 1956 and *The Philosophy of Space and Time*, transl. M. Reichenbach and J. Freund, Dover, New York, NY, 1958. For J. J. C. Smart, Bigelow cites, among Smart’s other works, “The River of Time”, *Mind* 58 (1949), pp.483-494, “Spatialising Time”, *Mind* 64 (1955), pp.239-241, *Philosophy and Scientific Realism*, Routledge and Kegan Paul, London, UK, 1963, and *Between Science and Philosophy*, Random House, New York, NY, 1968. For W. V. Quine, the works cited are *From a Logical Point of View*, Harvard University Press, Cambridge, MA, 1953 and *Word and Object*, MIT Press, Cambridge, MA, 1960. For David Lewis, Bigelow cites, among other works, his “The Paradoxes of Time Travel”, *American Philosophical Quarterly*, 13 (1976), pp.145-152 and his *On the Plurality of Worlds*, the work I’ve been repeatedly citing in this chapter. Not there listed, I’ll add a few more works, by a few more “anglophonic, analytic philosophers”: Remembering our section on properties, I’ll list a trope theorist whom we encountered there, namely, D. C. Williams, as with his Eternalist paper “The Myth of Passage”, the *Journal of Philosophy*, 48 (1951), pp.457-472. And, not to discriminate, I’ll also list an encountered friend of Concrete Universals, D. M. Armstrong, as with his Eternalist paper “Identity through Time”, in P. van Inwagen (ed.), *Time and Cause* (Dordrecht: Reidel, 1980), pp.67-78. Among those Eternalists just mentioned in the text, perhaps the most prominent relatively recent denier of Presentism is Eternalist Theodore Sider, especially

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in his *Four-Dimensionalism*, Oxford University Press, 2002. Of course, still others have yet more recently advocated Eternalism and, in the bargain, rejected Presentism.

<sup>17</sup> Lewis, *On the Plurality of Worlds*, p. 202.

<sup>18</sup> Lewis, *On the Plurality of Worlds*, pp. 203-204.

<sup>19</sup> Bradford Skow, “Are Shapes Intrinsic?” *Philosophical Studies* (2007) 133:111–130.

<sup>20</sup> Kris McDaniels, “Extended Simples”, *Philosophical Studies*, (2007) 133:131–141.

<sup>21</sup> In the recent literature, the position in focus is labeled with the phrase “growing block” in Berit Brogaard, “Sea Battle Semantics” *Philosophical Quarterly*, Vol. 58, no. 23, 2008, 326-335 and in Theodore Sider “Quantifiers and Temporal Ontology”, *Mind*, Vol. 115, no. 457, 2006, 75-97. The position has been labeled with “growing universe” by Ned Markosian in his Stanford *Encyclopedia of Philosophy* entry on Time, most saliently in section 6 of that entry, namely, Presentism, Eternalism and the Growing Universe Theory. Originally published in 2002, it was updated and substantially revised in 2008.

<sup>22</sup> Michael Tooley, *Time, Tense and Causation*, Oxford University Press, 1997.

<sup>23</sup> C. D. Broad, “The General Problem of Time and Change” in his *Scientific Thought* (London: Routledge and Kegan Paul, 1923. Excerpts are reprinted in *Metaphysics: The Big Questions*, Second Edition, Peter van Inwagen and Dean Zimmerman eds., Blackwell Publishing, 2008. In this reprinting, the cited paragraph appears on page 143.