

Review of *Four-dimensionalism*

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“The truth,” Quine says, “is that you *can* bathe in the same *river* twice, but not in the same river stage. You can bathe in two river stages which are stages of the same river, and this is what constitutes bathing in the same river twice. A river is a process through time, and the river stages are its momentary parts.” (Quine 1953, p. 65) Quine’s view is four-dimensionalism, and that is what Theodore Sider’s book is about. In Sider’s usage, four-dimensionalism is the view that, necessarily, anything in space and time has a distinct temporal part, or stage, corresponding to each time at which it exists (p. 59).

The book is structured theory-first: in the first chapter, Sider states the theory he’s talking about. The remaining chapters (with the exception of chapter 3 which offers a more consolidated and precise statement of four-dimensionalism, as well as its main rival, three-dimensionalism) consist of argument. Chapter 2 offers a series of arguments against presentism — the view that only the present exists. Chapter 4 catalogues a rather miscellaneous group of arguments for four-dimensionalism, including such favourites as analogies between space and time, and the problem of temporary intrinsics. Chapter 5 is an extended argument to the conclusion that four-dimensionalism, and especially Sider’s distinctive version of it, stage theory, gives the best solution to the “paradoxes of coincidence”. Chapter 6 surveys some arguments against four-dimensionalism, which get a summary beating.

One drawback to this structure is that it would be hard for someone who had not already absorbed some of the literature on presentism, persistence, temporary intrinsics, material constitution, or related topics to get a sense of what it’s all about. “Four-dimensionalism” is the answer, but what was the question? I can think of several that would be broadly compatible with everything Sider says: “What is it for an object to persist?” “What is the general nature of things in time?” “What is change?” Probably, Sider has all these in mind, but you will have to become interested in one or other of them before you start reading the book.

That said, the philosophers already interested in these questions are numerous, and *Four-dimensionalism* will be a valuable addition to our bookshelves. Not least because Sider has a number of good original arguments, of course (notably his arguments for four-dimensionalism from space-time and vagueness, sections 4.8 and 4.9, and his argument for stage-theory in chapter 5) — also because he’s done a good job of collecting arguments from a large and messy literature, including some that are often mentioned but never properly stated (such as the argument from

analogies between space and time, section 4.5). Sider has also done us all a service by thinking of a way to define four-dimensionalism in a way that ought to be acceptable to its opponents (section 3.2). Opponents who said that they didn't understand four-dimensionalism will, no doubt, be unimpressed, but they will have a hard time figuring out what it is about Sider's definition they don't understand.

For all Sider's definitional carefulness, I think he has made some poor choices of terminology. The title of the book is a case in point. You might have thought that there was some x such that four-dimensionalism is the doctrine that x is four-dimensional, and three-dimensionalism the doctrine that x is three-dimensional.

Not so! Because Sider defines four-dimensionalism in terms of objects having a temporal part corresponding to every time (even instantaneous ones) at which those objects exist, four-dimensionalism is a doctrine according to which some things are three-dimensional. Three-dimensionalism, on the other hand, says that some things are wholly located at several times so a three-dimensionalist can believe that everything is four-dimensional. Suppose I think everything is four-dimensional. In Sider's usage, that makes me a three-dimensionalist. My complaint here really is terminological — Sider knows who his dialectical opponents are, and that anyone who believes that everything is four-dimensional ought to be among them. It's just that, given that, it's inappropriate to call his opponents "three-dimensionalists".

Sider admits to this problem in the introduction, but says, nonetheless, that the usage of "four-dimensionalism" to mean "the thesis that things have temporal parts" is a perfectly standard use of the term, and he's going to stick with it (page xiii). True enough that it's a standard usage, but it does encourage confusions, which Sider has to debunk. For example, any argument that purports to show that the world is four-dimensional, is, of course, neither here nor there, as some three-dimensionalists agree that the world is four-dimensional (pp. 68–69, 79).

Moreover, it's not as if there was not an alternative terminology available. No-one would be taken in by the bogus arguments if we could all just speak sensibly and call the temporal parts doctrine "perdurantism", and the wholly located at multiple times doctrine "endurantism", as Mark Johnston and David Lewis do (Johnston 1987) (Lewis 1986, p. 202).

Sider's book also contains a defence of his own distinctive position within the persistence debate. Sider is a "stage theorist". He thinks that the world as metaphysicians aim to describe it — the biggest, most inclusive thing there *really* is — is four-dimensional, but what we call "the world", in ordinary usage, is three-dimensional.

In general, according to Sider, all the things we talk about — persons, chairs, electrons, the world — are three-dimensional, and exist only in the present. In this he is in agreement with a certain kind of three-dimensionalist. But those things aren't all there is: there are also countless other, non-present, times, with their own retinues of things very like ourselves, our furniture, and our surroundings. And Sider also believes in arbitrary fusions of all these things, including say, the fusion of present-bound me with all of my past-bound former selves, and all of my future-bound later selves.

That arbitrary fusion is exactly what a standard four-dimensionalist (J.J.C. Smart, say, or

David Lewis) thinks I am. And what Sider thinks I am is something Smart and Lewis would believe in anyway — my present temporal part. So Sider thinks that standard four-dimensionalism is exactly right about what there is, and wrong about which of those things are the persons, chairs, and other material objects we know and love. In Sider’s terminology, the thing that he thinks is me is a “stage”, and the thing that Smart and Lewis think is me is a “worm”; he is a “stage-theorist”, they are “worm-theorists”.

The debate between stage and worm theory is the sort of thing that’s often described in disparaging terms as “a semantic issue”. The thought is that four-dimensionalism settles the ontology of persistence, so it only remains to determine which of the things thereby described are persons, chairs, etc., this being a question about the meaning of “person”, “chair”, etc. Sider colludes in this, (p. 209)¹ but I don’t think he needs to. There is a way to see stage theory as a distinctive metaphysical position.

First point: ontology is not the whole of metaphysics. We want to know how things are, not just what there is. “Does time pass?” is as much a metaphysical question as “Does the future exist?” or “Are there temporal parts?” So, just because stage and worm theorists agree on all the ontological questions relating to persistence, it doesn’t follow that they agree on all the metaphysical questions.

Second point: persons, chairs, electrons, and so on, are part of the subject matter of metaphysics. It’s true that stage and worm theorists agree on all questions about how the world as a whole² is, but those aren’t all the metaphysical questions either. There appear to be real metaphysical disagreements left over about how the material objects of our acquaintance are — whether, for example, I am four or three-dimensional.

This feeds into my earlier worry about Sider’s use of “four-dimensionalism”. As I mentioned above, there’s a kind of “three-dimensionalist” who, paradoxical as it may sound, agrees with the worm-theorist that I am a four-dimensional object (though not one divisible into temporal parts) and disagrees with the stage theorist (who says I am a three-dimensional stage). So there is a metaphysical doctrine about my shape that is a matter of agreement between this three-dimensionalist and the worm theorist, and a matter of disagreement between this three-dimensionalist and the stage theorist. So there is a metaphysical doctrine about my shape about which the stage and worm theories disagree.

So, it seems to me that Sider’s defence of stage theory is perhaps more important than even he takes it to be — it can be understood as a defence of a serious metaphysical position. My main worry is the way Sider must squish all temporal states down to states of instantaneous things. Everything that is, was, or will be the case of me is something that could be the case of an instantaneous object. It seems to me, however, that many of the properties we ascribe to ourselves (and other things) could only hold of objects that are temporally thick.

Consider eating a three-course meal. No one stage can do this. Sider will have say that to eat a three-course meal is to have the complicated disjunctive tensed property of being something

¹Sider also sometimes characterises stage theory semantically, as at the top of p. 199

²“The world” here meaning the biggest thing known to metaphysicians, not the biggest ordinary material object.

that is eating a first course, and will eat a second and third course, *or* has eaten a first course, is eating a second course, and will eat a third course, *or* has eaten a first and second course, and is eating a third course. (pp. 197–8) The inelegance of this account is just the start — Sider will have to say that all such “temporally thick” properties are extrinsic (since the past and future tensed properties are extrinsic, implying, as they do, the existence of stages other than the one which has the property). But some seem intrinsic: the property of *being alive* for example. So I remain unpersuaded. But at the very least, Sider’s efforts have opened the gate to a fertile field in logical space.

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References

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