

## Ordinary Objects Aren't in Time

To be in time is to be temporal. To be temporal is to exemplify a temporal property or stand in a temporal relation.<sup>1</sup> Because ordinary objects<sup>2</sup> such as trees and tables have no temporal parts, do not stand in relations of succession, are not simultaneous with anything, and have no temporal location, they are not temporal, at least not in the most fundamental sense. Because ordinary objects are not temporal, they are not in time. This paper pursues four lines of attack in support of this admittedly surprising view. First, I argue that it would involve a category mistake to suppose that ordinary objects have any temporal characteristics. Second, I outline a positive account of temporality that accommodates the timelessness of ordinary objects nicely, on which the fundamentally temporal entities are events. Third, I distinguish primitive and derivative modes of temporality: although ordinary objects are not primitively temporal, their apparently temporal characteristics can be understood in terms of their derivative temporal character. And fourth, I critique the main conceptions of temporality, on which ordinary objects are temporal.

My claim that ordinary objects are not temporal requires qualification. The discussion will focus on the permanent or B-characteristics of time: temporal properties of succession, simultaneity and location. If ordinary objects have A-properties – transient features such as being past, present and future – and these are not reducible to complexes of B-characteristics, my argument will not rule out that ordinary objects may have A-properties.<sup>3</sup> On the other hand, if succession, simultaneity and location are reducible to A-characteristics, then, depending on the exact contours of the reduction, it may follow that ordinary objects also lack A-characteristics.<sup>4</sup> Accordingly, my claims

about primitive and derivative temporality require the same qualification: the thesis that only events are primitively temporal is limited to the B-theoretic aspects of time.

### I. Ordinary Objects and Temporal Relations

It is not possible for objects to stand in the temporal relations of succession, simultaneity or location because supposing they do so would involve a category mistake. One clue that it would involve a category mistake is that it is unintelligible - or perhaps necessarily false<sup>5</sup> - to assert that the objects in question have these relations, for example:

(1) My body preceded the third game of this year's World Series,

(2) My body is simultaneous with the third game of this year's World Series,

and

(3) My body was on February 12<sup>th</sup>, 2006 (T for short).<sup>6</sup>

There is nothing peculiar to my body, the World Series, or that date that makes these statements category mistakes or necessarily false: the same result would be reached if one substituted a reference to George Bush's body, the name of an apple or a definite description of some chair.<sup>7</sup>

The argument for the atemporality of ordinary objects may appear to depend inappropriately on superficial linguistic facts. In fact, the argument has nothing essentially to do with language. The argument really just involves pointing out that a certain purported fact is impossible. One way to see that such a fact is impossible is to notice that a sentence by which one would report the fact is senseless or necessarily false. But it is no more a fact about language that it makes no sense to assert that my body is at T than it is a fact about language that it makes no sense to assert that the

square root of Tuesday is red. In both cases the linguistic evidence is simply a reflection of the ontological situation.

## II. Why Ordinary Objects Lack Temporal Parts

The supposed temporal parts of ordinary objects may be either proper parts or improper parts. On the traditional, worm version of perdurantism, ordinary continuants are sums of temporal proper parts.<sup>8</sup> These temporal parts involve the object at a time, i.e., the whole of the part of the object that is at that certain time. On the stage theory of perdurantism, the ordinary object just is the stage.<sup>9</sup> Perhaps, on this view, there are also sums of stages, but they are not to be identified with the ordinary object. If ordinary objects are to have temporal parts in either sense, it must be possible for them to either be at certain times, or to have stages at certain times. My argument against temporal parts on a stage-theoretic conception is simple. Since ordinary objects are not at times, they cannot be stages that are at times.

My objection to the worm theorist's view that ordinary objects have temporal proper parts is slightly more complicated. Consider that something's spatial parts must have spatial relations to each other. Analogously, if something has temporal proper parts they must be temporally related to each other. The obvious relations such parts would have to each other would be succession and simultaneity. Typically, temporal parts would succeed each other, but in special cases – time travellers who visit their own past selves, for example<sup>10</sup> – they may be supposedly simultaneous. The temporal part of an ordinary object is such a thing as my body at T, where “my body at T” is supposed to be a denoting expression. Generally, if A is a part of B, then A must belong to the same ontological category as B. So, if B has certain kinds of features, so must A. And, I say, if my body at T is of the same ontological ilk as my body, it cannot be the case that my

body at T stands in temporal relations to my T' body or my T'' body (or anything else, for that matter). This is because, as I just argued, my body does not stand in any such relations.

The weakest link in this argument, it seems to me, is the claim that an object's temporal parts must be of the same ontological category as the ordinary object. On the standard worm theory continuants are sums. Do the parts that compose a sum really always belong to the same ontological category as the sum they compose? Surely the answer depends on what sum and category are in question.<sup>11</sup> But even if this principle should prove implausible with respect to the specific character of ordinary objects, the argument goes through without the assumption of this principle. For stages, intuitively construed, are supposed to be just the very brief versions of ordinary objects.<sup>12</sup> They are therefore the same kind of thing as ordinary objects, just briefer. But since ordinary objects – even instantaneously construed – are not at times, there is no hope for thinking of them as *temporal stages*.<sup>13</sup>

### III. Temporality

To be temporal is to exemplify a temporal property. The obvious temporal properties are succession, simultaneity and location. So to be temporal is to stand in relations of succession, simultaneity and location. I do not have a direct argument for this conception, although I will point to certain data that suggest it. The case for it rests instead largely on its dialectical advantage. I will show how thinking of temporality this way fits the evidence better than the alternatives I consider below (Section VI). In addition the conception explains the temptation to think ordinary objects are temporal.

One concern about this account is that it seems circular to define what makes something temporal in terms of the exemplification of a temporal property. What makes

a property temporal is as in need of explanation as what would make anything else temporal. But the temporality of these temporal properties is fundamentally different from that of any other item. The case of temporality is analogous with the situation regarding color. Something is colored just in case it exemplifies a color property. A property is a color property in case it is a color. Being colored and being a color are worlds apart. Analogously being temporal by exemplifying a temporal property and being temporal by being a temporal property are worlds apart. Events, as I will argue, are temporal in the sense of being elements of the content of time. Properties such as succession and simultaneity are temporal by being constitutive elements of the structure of time. While events are temporal by exemplifying those properties, those properties are temporal by being part of time itself.<sup>14</sup>

To be before something is to occur before it. To be at a certain time is to occur at that time. To be simultaneous with something is to occur simultaneously with it. Occurring is the kind of thing only events do.<sup>15</sup> A certain hockey game is before some birthday party. A graduation is on Tuesday. A certain fight is simultaneous with some fire. Events therefore are the fundamental bearers of temporal location, precedence and simultaneity relations. And so events are the fundamentally temporal entities. Whatever else is temporal, if anything is, is so only in virtue of being appropriately connected to events.<sup>16</sup>

On the view I assume here events are construed as a derivative kind of entity. On the account which comes closest to capturing the true state of things – Jaegwon Kim's [1993] – an event is analyzed as a structured complex involving a substance, property and time.<sup>17</sup> Paul's tripping involves Paul, the property of tripping, and a certain time. The first modification I propose to Kim's account is that events be

construed as involving particulars rather than substances. Although Kim emphasizes that his expression “substance” is not to carry too much theoretical baggage [1993: 33], it strikes me that it is too much of a term of art to do the neutral job it is intended to do. It would be better to think of Paul, e.g., as a particular, leaving more obviously open for the moment the question concerning his ontological status.<sup>18</sup>

One defect of Kim’s account is that times are not constituents of events. One reason not to include times in the account of events is that this precludes a relational conception of times. On that conception, details aside, an event’s being at a time is understood as the event’s belonging to the class of events with which it is simultaneous. But if each event involves a time as a constituent, that time cannot itself be understood as a collection of events. It would be a vicious regress to imagine times are composites of events, which are (partly) composed of times, which are composites of events, which . . .

Another reason to deny that events involve times as constituents emerges from the identity conditions of events. Suppose the time T of Paul’s tripping were one of its constituents. Suppose also, as Kim holds [1993: 35], that the time is an essential constituent – that is, anything not involving that time is not that event. It follows that Paul’s tripping could not happen at any time except T. Since Paul’s tripping could have happened earlier or later, it cannot be partly constituted by the actual time at which it occurs.<sup>19</sup>

One advantage of removing times from the ontological analysis of events is that they may now be construed as the paradigmatic bearers of precedence, simultaneity and location relations. Events that involve times as elements do well enough as the relata of precedence and simultaneity relations, perhaps.<sup>20</sup> But, it does not appear sense can be

made of the idea that structured complexes partly constituted by times are themselves at times. As I maintained earlier, it is impossible for a time T to be at itself. Accordingly, it does not appear possible that an entity that involves T as an element could be at itself. But if events do not involve times, there is no such problem with taking events also as the fundamental bearers of temporal location relations.

Events construed as property exemplifications are the fundamental content of time. Such events are before and after each other, simultaneous with each other, and located at times. This account fits most comfortably with a reductive theory of times. Given such a theory, location at a time may be construed in terms of the more primitive simultaneity connection. The fundamental temporal relations on this view are precedence and simultaneity. Indeed, simultaneity itself can be reduced to precedence as follows:  $xSy = \text{df. (1) } x \text{ and } y \text{ are each before or after something and (2) } x \text{ and } y \text{ are before all the same things and after all the same things.}$  It is possible to think that in addition to events, substantival times stand in precedence and perhaps simultaneity relations. Because substantival times surely belong to a different category than events, this version of the view would inelegantly involve supposing the content of time to be fundamentally heterogeneous.<sup>21</sup> The core of this account of events, finally, does not entail anything about which entities are particulars. Although I believe ordinary objects are particulars, and thus not events, and thus not temporal, it is possible to accept that temporality essentially involves events, and events are structures of particulars exemplifying properties, but hold that ordinary objects are themselves events. A perdurantist, for example, could think of ordinary objects as involving truly temporal parts if she also thinks, as Quine does [1960: 171], that stages are really events.

#### IV. The Apparent Temporality of Ordinary Objects

Ordinary objects are particulars. A particular is an entity that exemplifies properties but is not itself exemplified. This conception of particularity, to my mind plausibly, makes it incoherent to suppose particulars exemplify no properties.<sup>22</sup> It also, implausibly, may allow that on this conception events are particulars.<sup>23</sup> Events are not exemplified because they are not properties. On the other hand, events on the present conception do themselves exemplify properties – they at least stand in relations. This imperfection in the definition may be rectified by requiring that particulars be ontologically simple. Something is ontologically simple just in case it has no proper constituents, where constituency is not to be confused with parthood. Events are accordingly ontologically complex and thus not particulars.

Since ordinary objects are particulars, they are related to events by being constituents of them. Ordinary objects are not unique among particulars. Whatever else is particular similarly is related to events by being a constituent of them. Ordinary objects are not atemporal because they are ordinary but because they are particular. (Accordingly, the emphasis below is sometimes on particulars in general rather than on ordinary objects as such.) To be successive, simultaneous or located something must occur. But particulars in general do not occur. In other words particulars are not events. Since they are not events they are not temporal.

Numerous phenomena suggest, contrary to my contention, that particulars like ordinary objects are temporal. These phenomena fall into several categories. Ordinary objects have properties in a temporal way. Something may be F: at T, before it is G, while something else is G. Ordinary objects also have ages. They have beginnings and ends. They change. They exist at times. They exist before other things, and

simultaneously with other things. How do these facts fit with my suggestion that ordinary objects are not temporal?

An explanation of these phenomena requires a more thorough account of the relationship between events and particulars. Events involve particulars and properties. Particulars and properties may be said to be the constituents of the events in which they are involved.<sup>24</sup> The fact that particulars – for instance, ordinary objects – are so intimately involved with the entities that are temporal explains the general temptation to think of particulars as themselves temporal. Events should be thought of as “primitively” temporal since they are the entities that in the first instance connect with time. To be primitively temporal, more precisely, is to exemplify or stand in a temporal property or relation, including precedence, simultaneity and temporal location. But ordinary objects and other particulars are also intimately connected with time in virtue of their intimate connection with events. Accordingly, something may be said to be derivatively temporal just in case it is not primitively temporal and is a constituent of something that is primitively temporal.<sup>25</sup> Thus particulars – and properties, it turns out – are derivatively temporal.<sup>26</sup>

Now we can return to the phenomena that seem to imply that ordinary objects are temporal. How does a timeless entity exist at various times? How does it begin and cease to exist? How does it have an age? How does it exemplify properties at a time? And how does it change? Particulars generally and ordinary objects specifically can do these things even though they are strictly timeless because of the way they are connected to the entities that really are temporal. X exists at T just in case X is a constituent of an event that is (located) at T. X begins to exist at T just in case X is a constituent of an event at T, and X is not a constituent of any event that is at any time before T.<sup>27</sup> (The

event that constitutes the beginning of X's existence is also evidently the first event in which X is a constituent.) X exists completely<sup>28</sup> before Y exists just in case every event<sup>29</sup> in which X is a constituent is before every event of which Y is a constituent.<sup>30</sup> X exists at the same time as Y exists just in case X is a constituent of an event E, and Y is a constituent of an event E', and E is simultaneous with E'. X is N units old at T just in case the first event in which X is a constituent is N units before T. X has property F at time T just in case X is the particular constituent of the event X's being F, which is at T. X changes from being F to being G (for incompatible F and G) just in case X's being F is before X's being G.

The penultimate identification requires special comment. There are many who think the fact that X is F at T is so fundamental that it does not admit of further reduction.<sup>31</sup> One version of this view has it that "is F at," and any such changing or changeable feature, picks out a relation in which X stands to T. If times are not parts of the building blocks of time, as I have maintained, there can be no hope for thinking that the exemplification of any changing or changeable property not only is necessarily connected with but involves some time.<sup>32</sup> Admittedly, it follows from my account that the X of the event X's being F may have the impure relational property *being F at T*. But this is as much amenable to analysis as is my property of *eating three feet from my office*. In the latter case what is really there is my eating and my office, which are connected by the *three feet from* relation. What is really there in X's having the relational property *being F at T* is the event of X's being F and the time T, which are connected by *being at*. I would reply in the same way to the objection that because X is F before or while Y is G, X is F in a temporal way. What is really there is X's being F which is connected temporally to Y's being G.

These accounts have the interesting consequence that properties – at least those that are constituents of events – begin and cease to exist, have ages, etc.<sup>33</sup> – in much the way that particulars do. This is not so counterintuitive if, as I believe, properties are construed as immanent, that is, existing only if exemplified. Such immanent properties may be either tropes or universals. Tropes, like individuals, are supposed to be capable of being diverse even if they resemble each other perfectly. Universals are supposed to be the same if they resemble each other perfectly. Tropes do not fit so easily with what has been said about the role of particulars in events. Traditionally, trope theorists have wanted particulars to be just bundles of tropes. The composition of events therefore could not include both properties and particulars. Nonetheless, the trope theorist sympathetic to this account may think of events as involving tropes' standing in relations to other tropes. An individual trope, on this proposal, would not be fundamentally temporal but only derivatively so.

My preference however is for immanent universals, which, since they naturally call for non-reductively construed particulars, fit the picture more nicely in any case. In order to serve this purpose of course immanent realism cannot be understood, as it often is, as the doctrine that properties are wholly present in more than one place at a time.<sup>34</sup> But this is in any case advisable, first, because the popular definition unfortunately implies that no one before Armstrong believed in immanent universals. And, second, the core of the view that properties are immanent universals really has nothing to do with multiple location. The core of the view is rather that properties exist only if exemplified, and that if, for example, the color of this and the color of that are the same, there is just one color property involved.<sup>35</sup> The fact that properties on this theory of temporality have beginnings, ends, ages and so forth will not be hard to swallow for

those who are ready to accept immanent realism, since they are ready to say that properties are temporal *tout court*.

The answer to the objections that my body's existence may have preceded the this year's World Series, that it may exist on Tuesday, May 13, 2003, and that it may exist simultaneously with the third game of this year's World Series is obvious. To exist before something, to exist at a time, and to exist simultaneously with other things are all mere derivative temporal features, to be understood in terms of relations to those entities that are primitively temporal.

#### V. Are Temporal Relations Divisible?

A further objection to my contention that particulars generally and ordinary objects specifically are timeless appeals to the connection I acknowledge to obtain between particulars and events. If events are temporal, and particulars are constituents of events, does it not follow that particulars are temporal? More specifically, if particulars are constituents of events that stand in precedence relations doesn't it follow that particulars stand in precedence relations? The objection may be stated in a general or in more specific forms. Which of the following principles it requires will depend on how specific the objection is:

(C-P) Necessarily, if X is a constituent of Y and Y preceded Z, then X preceded Z.

(C-L) Necessarily, if X is a constituent of Y, and Y is at time T, then x is at time T.

(C-S) Necessarily, if X is a constituent of Y, and Y is simultaneous with Z, then X is simultaneous with Z.

(C-T) Necessarily, if X is a constituent of Y and Y is temporally related to Z, then X is temporally related to Z.

(C-R) Necessarily, if X is a constituent of Y and Y has any relation R to z, then X has R to Z.

(C-G) Necessarily, if X is a constituent of Y and Y has property<sup>36</sup> F, then X has F.

The objection may also involve an appeal to a more restricted version of one or more of these principle by specifying that the constituent in question must be a particular. For example one might modify (C-P) to say

(C-P\*) Necessarily, if X is a particular and a constituent of Y, and Y preceded Z then X preceded Z.

The fundamental problem with (C-P) and its kin is that they commit the constituent analogue of the fallacy of division. From the fact that a certain complex has a certain property, nothing follows about whether its constituents do, too. Call a property that is correctly characterized by (C-G) a divisible property.<sup>37</sup> Some properties and relations are divisible. The fact that A exists entails that all its constituents do, too. So perhaps there is something in the nature of the entities that stand in temporal relations together with the kinds of constituents they have that guarantees the divisibility of those relations.

The one extant argument in this connection purports to prove a version of (C-L). Smith [1998: 161] has us suppose that what is temporally located is a particular construed as a bundle of properties.<sup>38</sup> Although Smith's claim of divisibility concerns only temporal location, the hope might be to infer the same of the other relations. "If a bundle of monadic properties is located at  $t_1$ ," he claims, then "each monadic property that is part of this bundle is located at  $t_1$ . (This argument is not a 'fallacy of division'<sup>39</sup> since it is based on the nature of bundles of monadic properties)" [*ibid.*].<sup>40</sup>

To begin with, this argument assumes that temporally located entities are particulars, and more specifically, that particulars may be understood as bundles of properties. Since there are other options, even if successful the argument does not show

that temporal relations are divisible no matter the appropriate analysis of their relations. Even if it is supposed to follow from the fact that a bundle of properties is located at T that all the properties are so located, the similar entailment may not obtain for the complexes that are events. Moreover, what is it about the “nature” of these bundles that guarantees the relevant transfer? Plainly, being a constituent of a bundle is no guarantee of having every property of the bundle. Though the bundle is three meters long, obviously it might be the case that some bundled property is not. Smith just does not say what it is about the “nature” of bundles that would guarantee the divisibility of temporal location.

## VI. Rival Accounts of Temporality

None of the theories I describe in this section distinguish existing in time from being in time, a contrast I have mentioned (Section IV) and about which I make heavy weather below (Section VIII). These theories assume that existing in time is the same as being temporal, which they describe equivalently as being in time. I criticize them therefore as theories about temporality in general.

For X to exist in time, according to Smith [1993: 209; 1998: 148], is for X to exemplify some property F at some time T and not exemplify it at some time T'. If this is what it is to exist in time, then evidently (at least many) ordinary objects would be temporal, since many ordinary objects do exemplify properties at some times but fail to exemplify them at other times.

The second clause of his account assumes that in order for X not to exemplify F at T', X must exemplify some property at T'; as one is tempted to put it, X must exist at T'. If this were not the appropriate interpretation, the second clause would be otiose. If the

facts that X is F at T and that it is non-existent at T' suffice for making X exist in time it is surely because X is F at T; X's non-existence at T' does not contribute anything. I will assume therefore that it is Smith's intention that X must have some properties at T'. Accordingly, this clause would have been better put by saying that X must be not-F at T'.

Instantaneous entities are possible.<sup>41</sup> They may be of two kinds. They may be entities that are located at times or they may be times themselves. An instantaneous located entity will not be able to go from being F at one time to being not-F at another time, because, being instantaneous, it cannot go from being at one time to being at another at all.<sup>42</sup> Smith's definition would therefore imply that instantaneous objects are not temporal. But since instantaneous objects stand in succession, simultaneity and location relations, they are surely temporal. Much the same considerations apply to instantaneous times. Times in general and instantaneous times in particular are surely temporal. But they do not go from having some F at one time to having not-F at another just because they do not go from being at one time to being at another. And so they would not count as existing in time by Smith's definition.

Even if Smith's account is modified in the obvious way to accommodate these criticisms - he might say that X exists in time just in case X is F at T, period - it still fails. Although it would require too much of a digression to substantiate this in detail, the most fundamental reason temporality cannot be identical with exemplifying a property at a time is that, as Geach [1972: 311] implies,<sup>43</sup> the phenomenon of times - this time, that time - is in no way fundamental to time.<sup>44</sup> The facts that X may be (in a tensed way) F, that it may be F before it is G, that it may be F while y is G are all ontologically prior to facts about locations at particular times. The supposedly fundamental fact that X has F

at T (where T is now) may be understood in some contexts as simply equivalent with the fact that X has F, period [Prior 2003: 32]. The latter expression, not involving the misleading suggestion that there is such an entity as a time, is accordingly to be preferred.<sup>45</sup> Since times presuppose various other (therefore more fundamental) temporal phenomena, they cannot be fundamental to temporality itself. Something's being temporal cannot involve its connection to a time if, as I have argued, a time presupposes various other temporal phenomena.

Even if times were fundamental to temporality, the exemplification at a time view still runs afoul of the obvious temporal features of events and times themselves. Events and times stand in relations of succession to other events and times, and events are located at times. This in itself suffices for their being temporal. Even if events and times also exemplify properties at times, it is still not true that their having these temporal relations is constituted by their having properties at times. But it is in any case impossible for times to exemplify properties at times. On the exemplification at a time view, something that exemplifies a property at a time itself exists at that time. So if T were F at T, T would be at T.<sup>46</sup> If T were at T, that would be a necessary fact. But facts about temporal location are contingent.

A closely related view has it that to be temporal is to change, or to be capable of change.<sup>47</sup> If X's changing is its going from being F at one time to being not-F at another time, the change account reduces to a version of the exemplification at a time account. And this, like Smith's account, implies that ordinary objects would be temporal, for they surely do change and thus are capable of changing.

One reason temporality is not identical with change is that it is possible for something to be temporal even though it doesn't change. This is possible for located

temporal entities in two ways. A temporal entity may be instantaneous or it may persist for some time unchanged. Again, instantaneous things do not change because they do not have the time in which to do it. A persisting thing may fail to change from one time to another insofar as it has all the same properties at both times. The possibility of either kind of unchanging temporality assumes pure temporal change is not genuine change, at least not in everything.<sup>48</sup> The mere fact that something has gone from being present to past, say, is not in itself a change in the thing. The possibility of a temporal thing persisting unchanged additionally assumes that genuine change involves variation of something's non-relational properties.<sup>49</sup>

These possibilities concern temporally located entities. Temporal locations – relationally or substantively construed – if such there are, are similarly temporal without changing. Temporal locations do not gain or lose non-relational properties, if they have any at all. Nor do they change their precedence relations to other times or events. Nor do times change with respect to what entities are at them. If the end of World War II was in 1945, it will always have been in 1945. Yet since they do stand in succession relations to other times and events, they are at least in certain respects temporal.<sup>50</sup>

The view that temporality is the capacity to change faces similar problems. Times not only do not change, they are incapable of changing. 1945 cannot go from being before to not being before 1984. Nor can it go from having the end of World War II at it to not having that event at it. This is because times do not persist. They do not go from being at one time to being at another. True, if a time is extended it may be made up of parts such that a certain event is at some parts but not others. But such an

extended time is no more changing than is a poker that is hot at one end and cool at another.<sup>51</sup>

The closest extant view to the one I advocate holds that things are temporal by being located in time. Actually, since the location account is advocated by philosophers who accept a metaphysics inspired by contemporary physics, it would be better to say that on the view things are spatio-temporal by being located at space-times. Because I do not assume that genuinely temporal entities are really spatio-temporal – although neither do I assume that they are not – the view must be adapted to say that temporality is really temporal location.<sup>52</sup> On this account also, assuming ordinary objects have temporal location, it follows that ordinary objects are temporal.

Although temporal location is a mark of temporality, it is not the only mark.<sup>53</sup> If something's being located entails its being successive and simultaneous with other things, then the location account would be extensionally equivalent with my own. But even then, unless precedence and simultaneity can be understood in terms of location, the facts that something is successive and that it is simultaneous with other things are distinct from the fact that it is located.<sup>54</sup> Each property, therefore, needs to be considered in its own right.

## VII. Two More Objections: Perception and Causation

My view that ordinary objects and other particulars are timeless appears incompatible with two other facts: that ordinary objects are perceived and that they stand in causal relations. It would be strange if timeless entities were perceived, and it would be strange if timeless entities could enter into causal relations. These seem to be the sort of relations only temporal entities can enter into. The two phenomena are

considered together because perception and causation are fundamentally connected on the view I endorse.

Indeed perception and causation are the sorts of relations only temporal entities can enter into. But there is independent reason to think that ordinary objects do not enter into such relations. It is a mistake to think that ordinary objects strictly speaking enter into causal relations. I align myself instead with the view that the true relata of causal relations are events.<sup>55</sup> Given my account of events, the relationship between ordinary objects and causation is the same as their relation to time. Ordinary objects are derivatively causal, we may say, insofar as they are constituents of the events that are primitively causal.

Conveniently, I believe perception may be understood as a causal relation.<sup>56</sup> To see a piece of paper is to engage in the appropriate causal connection to the piece of paper. Because perception is causation, and since causation relates events and not objects, it is misleading to say that one does see a piece of paper. It would be better to say one sees that the piece of paper is this way or that. Given this theory, ordinary objects are not strictly speaking perceived, although they are intimately connected with the entities that are. It is therefore not true that on my theory timeless objects are perceived.<sup>57</sup> Nor are timeless ordinary objects connected to other things by causal relations, since they do not enter into causal relations at all.

### VIII. Being in Time and Existing in Time

Traditionally, the question concerning the relationship between some entity and time has been put in terms of whether the entity is “in time” or whether it “exists in time.” The tradition has not distinguished these two. By failing to distinguish these concepts, the question of temporality has been oversimplified in various ways. I have

argued that it is possible that although something is not, for example, “in time” in the sense that it does not stand in temporal relations, yet it is “in time” in the sense that it is a constituent of something that does. I have also said nothing to rule out the theoretical possibility that although something is “in time” because it stands in (or is appropriately connected to things that stand in) temporal relations, it may not have the same connection to the A-theoretic elements of time.

In the interests of efficient communication it is useful to make some decision about how to use such expressions. Not finding that “exists in time” or “is in time” have a great deal of content in ordinary contexts, the main restrictions governing an acceptable use of these expressions are systematic. I propose that the most general issue concerning temporality is the question what it is for something to be in time. There is, I admit, as much decree as discovery in this proposal. So far as ordinary usage is concerned the same case could be made for “exists in time” as the most general temporal predicate. The question about temporality, however, is better put by eschewing the traditional terminology altogether and asking: what makes something temporal?

Although particulars (and properties) are not (primitively) in time, they may be said to exist in time. Among the data that must be accommodated by any theory of temporality is the fact that particulars – ordinary objects most prominently – exist at various times. Dinosaurs existed from a certain time to some other time. It would be bizarre if something that existed at a certain time did not exist in time. Admittedly, “exists in time” is used idiosyncratically in saying that particulars exist in time but are not in time. This is just because no distinction has been made by others between existing in time and being in time. The peculiar status of particulars (properties) *vis a vis* time plainly calls for some special designation, and this seems the one that most aptly

captures the phenomena. Existence in time, finally, may be understood to be completely reducible to being in time together with other not-inherently temporal features. To exist in time is to be a constituent of something that is in time.

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<sup>1</sup> “Properties” in the following includes both non-relational properties and relations. It is also used for the most part without philosophical baggage: extreme nominalists may translate the talk about what temporal properties things have to talk about which predicates apply to which things. I say “for the most part” because in Section V I suggest properties be construed as universals.

<sup>2</sup> It is not necessary for my purposes to be perfectly precise about what counts as an ordinary object. Whether the sky, shadows or holes count as ordinary objects will not affect the discussion.

<sup>3</sup> Smith [1993] thinks of past, present and future as real properties, and McTaggart [1927] would have if he had believed in time. Interestingly, neither of them thinks of these properties as, in the first instance at least, characterizing ordinary objects. For Smith they characterize states of affairs, and for McTaggart they would characterize events.

<sup>4</sup> See Gale [1968] for an example of such a reduction.

<sup>5</sup> My initial inclination is to think that the sentences below lack truth-value altogether, but perhaps as Richard Fumerton has suggested to me it doesn’t take very much to have a truth-value.

<sup>6</sup> It does not help to say that an ordinary object has the relations of simultaneity or succession to another object. It is equally clearly not true that my body is after my great-grandfather’s body.

<sup>7</sup> A few philosophers agree that ordinary objects are not located at times [Leftow 1991: 18; 2002: 21-22; Simons 2000a: 63; Holt 1981], and a couple that they do not stand in succession or simultaneity relations [Holt *ibid.*; Hacker 1982: 17]. None of them has concluded from this that ordinary objects are not temporal.

<sup>8</sup> For example, Lewis [1986: 204].

<sup>9</sup> This view may be found in Sider [1996].

<sup>10</sup> Lewis [1986: 71-72].

<sup>11</sup> Suppose “super-universalism” [see van Inwagen 1991: 74] is true and any X’s, where the X’s may be of any kind at all, compose something. If so, then there is the object that is the sum of multiplication and Quine’s first memory from childhood. What is the relationship between the category of this object and the category of multiplication? It is hard to say, in part because it is hard to say what kind of entity that sum would be.

<sup>12</sup> Lewis thinks of stages this way, saying in the case of persons that “[a] person-stage is a physical object, just as a person is” [1983: 76].

<sup>13</sup> I consider the view that stages really are events at the end of the next section.

<sup>14</sup> Thanks to Taylor for helping me see the importance of this objection.

<sup>15</sup> I will ignore possible distinctions within the class of occurrences among processes, states, etc.

<sup>16</sup> Geach hints at a similar account on which temporal relations connect events rather than things [1972: 317]. He also notes the same data which suggest that the linguistic items that naturally flank temporal predicates are sentences presumably about events, and not names of individual objects. Geach, however, is wary of nominalising expressions, as I do, to refer to events.

<sup>17</sup> It may be advantageous to think of events as a subspecies of the genus that involves particulars exemplifying properties. It does not feel right to some to include my being human among events. See Chisholm [1990]. It does not appear that such a modification would affect the heart of my view.

<sup>18</sup> Just below, the concept of particular is severely regimented. Those who are fond of a Kimian account of events and find it plausible that they are the fundamental content of time may consistently think of particulars some way other than the one proposed.

<sup>19</sup> Lewis concurs [1986: 250].

<sup>20</sup> But perhaps not. It is a contingent fact that Paul’s tripping is simultaneous with Mary’s singing, but not a contingent fact, if it is a fact at all, that T is simultaneous with T. And therefore it would appear not to be a contingent fact that an event that involves T as an essential element is simultaneous with another event that involves T as an essential element.

<sup>21</sup> Although it does seem plausible to reduce location to simultaneity and simultaneity to precedence, I will continue to speak of temporality as involving all three.

<sup>22</sup> Depending in part on how exemplification is construed, the definition may or may not count first-order tropes as particulars. Tropes are qualities that may differ even if they resemble perfectly. If tropes are exemplified by something non-qualitative, such as Martin’s substance [1980], they are not particulars. If first-order tropes are had by being members of the appropriate bundles of tropes, *a la* Campbell’s account [1990], and one takes exemplification to just be co-bundling, then first-order tropes are not particulars. If exemplification in the first-order case is thought to require a connection between a property and something that is not a property and ordinary objects are bundles of tropes, then first-order tropes are not particulars, even if they themselves exemplify second-order properties. And however exemplification is construed if tropes do not themselves have properties, then they would again not count as particulars.

<sup>23</sup> Davidson’s claim that events are particulars may involve no more than his view that they can be referred to with singular terms, names for them can flank identity statements, and other such linguistic facts [1980: 166]. Evidently, a particular in that sense need not be a particular in my sense.

<sup>24</sup> What is constituency? I’m not sure, but my inclination is to take it as a primitive. But which kind of primitive? Is it a primitive relation? Property? An ontological kind of its own? One thing I can say fairly confidently is that the character of

constituency depends on that of exemplification. If that is right, it is unsurprising that constituency is so mysterious given the mysterious character of exemplification.

<sup>25</sup> The first clause is necessary to allow that primitively temporal events could be constituents of more complex events that are also primitively temporal. For example, the Battle of the Bulge should be primitively temporal even if it is a constituent of the primitively temporal World War II.

<sup>26</sup> Smith [2002: 127] alludes to a sense in which something (for him the exemplification “tie”) that is strictly atemporal is yet in a sense temporal by belonging to a state that is temporal. Smith also holds that predicates such as “successive,” “earlier,” and “later” are part of the complete description of some object X because they are parts of the description of X’s “states” [1993: 210]. In what is intended to be a restatement of his official definition, Smith says that X “exists in time” just in case temporal predicates are necessary to describe some of its “states,” suggesting the very dichotomy I hold between the proper temporality of “states” and the derivative temporality of particulars involved in them. Leftow [2002: 21-22; see also 1991: 18] agrees that it is not “objects” but states, events, processes and such that are “primarily” located at times. He even agrees that objects such as John Wilkes Booth or God are located at times only insofar as they are involved in states, events, etc. that are. The temporal predicates that apply to such entities as events are said to “transfer” to objects involved in these events [Leftow 2002: 21]. Indeed, “is temporal” is among the predicates taken to be transferred from events to objects [*ibid.*, 43].

<sup>27</sup> It does not appear to affect anything I propose here, but for the record I think of these not as definitions of linguistic items, but as identifications of the real phenomena themselves.

<sup>28</sup> This is the sense in which George Washington existed before me, since his existence began before mine, and they never overlapped. Something X may exist partially before Y exists just in case X begins to exist before Y begins to exist. Partial precedence is the relation in which Mount Everest’s existence stands to my own.

<sup>29</sup> It may be necessary to qualify this by saying “every event that is temporal.” Since any exemplification of a property by a particular counts as an event, a certain particular’s being before something is an event, although one of questionable temporal character. See note 26 for how events may be more regimented to include only temporal entities. My claim is that only events are temporal, not that all events are temporal.

<sup>30</sup> Hacker agrees that facts apparently about succession between objects (as he calls them) actually involve covert reference to the succession of events in which those objects participate [1982: 17].

<sup>31</sup> See [van Inwagen 1990: 250] and [Mellor 1981: 111], for two influential examples.

<sup>32</sup> The theory faces other problems as well, not least explaining what if any non-relational properties changing objects have. See Hawley [2004: pp. 16-20].

<sup>33</sup> They don’t, however, have properties at times given those definitions.

<sup>34</sup> See Lewis [1986: 202], for one.

<sup>35</sup> This is rough. If the color of this is just the class of all things that have this color, then as with immanent realism, there would only be one property involved in the situation described.

<sup>36</sup> Again “property” is used to include relational ones.

<sup>37</sup> Armstrong calls a property which when had by X must be had by all the “parts” of X “homoeomoretic,” and cites some of the previous discussions of the phenomenon [1978: 68]. Since one concerns parts and the other constituents, it would be rash to infer that a homoeomoretic property is thereby divisible, or *vice versa*.

<sup>38</sup> Another argument concerning temporal features and constituency is also put forward by Smith [1993: 163]. It concerns, however, not the temporal relations I am discussing but the A-property of *being past*, which he says is divisible.

<sup>39</sup> The allusion is to Vallicella’s [1995] complaint that Smith’s argument for the temporality of propositions commits that fallacy.

<sup>40</sup> Smith offers the argument as a way of showing that even *if* particulars are understood as bundles of properties those properties must still have temporal location. He does not commit himself to the antecedent.

<sup>41</sup> Smith’s later [1998: 148] definition is not supposed to include “instantaneous events or enduring processes.” Perhaps he is aware of the problems I go on to note if the definition is taken to include instantaneous entities. Whether it is intended to cover everything or not, the fact remains that Smith’s definition does not capture the character of temporality in general.

<sup>42</sup> If Smith’s definition implies that apparently instantaneous objects do have properties at other times, as it may, this would itself be a *reductio* of the view, since instantaneous located entities by definition exist at only one instantaneous time. This assumes that Smith would or should hold that if X is F at T then X exists at T. An instantaneous object that had properties at several times would exist at each of those times.

<sup>43</sup> Geach’s main point is not ontological (like mine) but semantic.

<sup>44</sup> It is worth emphasizing that in rejecting the fundamental character of times, Geach in no way intends or needs to reject the fundamental character of time. The point is that times are but one fairly superficial manifestation of the character of the much more encompassing phenomenon of time.

<sup>45</sup> Admittedly, World War II’s ending in 1945 cannot be identified with World War II’s ending, period. Concerning this date aspect of times, I would associate myself with Chisholm’s [1996: 57ff.] proposal that dates be identified in terms of complexes of recurring events, such as the revolution of the earth around the sun.

<sup>46</sup> Assuming, again, that there is no distinction between *existing at T* and *being at T*.

<sup>47</sup> Although I know of no one who has defended this account in print, Craig [1998: 111] assumes it.

<sup>48</sup> The assumption stands also in my contention that times do not and instantaneous entities cannot change.

<sup>49</sup> It is impossible for something to persist unchanged if the following are true: times are collections of events, collections differ only if they differ in members and variation in impure relational properties is genuine change.

<sup>50</sup> These possibilities concern times, not time itself. It may also be plausible, as Campbell [2002: 153] has maintained, to hold time itself to be temporal in not quite the same way as more ordinary objects.

<sup>51</sup> Are instantaneous located objects also a counterexample to this mutability account? The question hinges on scope: It is not possible for an instantaneous thing to change, but plausibly an instantaneous thing is capable of changing. The latter is possible if, as seems plausible, an instantaneous located entity could have duration.

<sup>52</sup> Some advocates of this view have allowed that not everything is spatio-temporal by being spatio-temporally located. See Armstrong [1988: 111-112; 1989: 99] and Campbell [2002: 153].

<sup>53</sup> Leftow [2002: 22] insightfully points out that something could have some “typically temporal properties” without having others. The concept is so defined that something may have a typically temporal property without being temporal.

<sup>54</sup> Although if there are times it is not similarly true that “things” that stand in precedence relations are simultaneous and located.

<sup>55</sup> A view held, among others, by Davidson [1993] and Lewis [1986].

<sup>56</sup> See, e.g., Fumerton [1985].

<sup>57</sup> My thanks to Fumerton for helping me see this.