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When are universals? the relationship between universals and time

Ernâni Sobrinho Magalhães

University of Iowa

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Magalhães, Ernâni Sobrinho. "When are universals? the relationship between universals and time." PhD (Doctor of Philosophy) thesis, University of Iowa, 2004.
https://ir.uiowa.edu/etd/118.

WHEN ARE UNIVERSALS?
THE RELATIONSHIP BETWEEN UNIVERSALS AND TIME

by

Ernâni Sobrinho Magalhães

<u>An Abstract</u>

Of a thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Philosophy in the Graduate College of The University of Iowa

December 2004

Thesis Supervisor: Professor Richard Fumerton

ABSTRACT

In Re realism is the two-pronged view that, first, when this and that have the same color, this color and that color are identical. There is just one color, the universal. Second, on the view, this color exists just in case something has it.

Say my cat has the same color as the dog I owned when I was a child. Since the dog existed before the cat, and precedence being irreflexive, it seems plausible to infer that the dog and the cat are distinct. Now take the colors. Since the colors are allegedly *in re*, and thus perhaps somehow elements of the cat and dog, it seems plausible to infer that the dog's color also preceded the cat's color. And therefore that the cat's color cannot be identical with the dog's. Finally, since the *in re* realist understands the sameness of properties in terms of identity, it follows that the cat's color cannot be the same as the dog's.

The problem generalizes: What is the relationship between universals and time? Ignoring the temporality of that which constitutes time, to be temporal is to have a temporal "feature." These "features" are of three kinds: precedence, times, and being present, past, etc. The fundamental question in each case is whether universals have the feature. Do universals precede? Are they at times? Are they present?

Time, I argue, is essentially the field in which things happen. To happen, I argue, is for one thing to do something. For one thing to do something is for the thing to exemplify a property. Such exemplifications of properties by objects I call "states of affairs." Only states of affairs precede, are at times, or are present. Universals, not being states of affairs, are not temporal.

But, by the same argument which shows that running is not temporal it can be shown that Jack is not, even though Jack's running obviously is. So far I have defined what it is to be temporal; primitive temporality. But since Jack is a constituent of something temporal, he may be justly thought of as *derivatively* temporal.

Abstract Approved:_____

                                          Thesis Supervisor

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                                          Title and Department

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                                          Date

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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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This is to certify that the Ph. D. thesis of

Ernâni Sobrinho Magalhães

has been approved by the Examining Committee for the thesis requirement for the Doctor of Philosophy degree in Philosophy at the December 2004 graduation.

Thesis Committee: _____
                     Richard Fumerton, Thesis Supervisor

                     _____
                     Laird Addis

                     _____
                     Panayot Butchvarov

                     _____
                     Evan Fales

                     _____
                     Jon Ringen

To my mother, for everything

ACKNOWLEDGMENTS

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INTRODUCTION

The Problem: *In Re* Universals and Time

Unquestionably, there are properties: shapes, colors, tones. Unquestionably, there is time: times, the present, before and after. But there is no unquestionable truth about the relation between them. There is no unquestionable view, more precisely, on whether properties are temporal. Indeed, there are hardly views to speak of at all. This dissertation delineates and proposes an answer to this question. First, some preliminaries.

I begin by assuming a view about the nature of properties. This view I call "*in re* realism." On it, properties are universals. That is to say, when two things share a property, the property shared is but one thing.[1] Also, *in re* universals do not exist except exemplified. If nothing were blue there would be no blue.

When this color and that color are the same, I say, there is really just one color there. What does this mean? This is a question about identity, of which I am inclined to say, in the spirit of Bishop Butler: identity is what it is, and not something else. If anything is beyond analysis, identity surely is it. There are cases apparently involving identity which are perhaps amenable to analysis. The fact that the man who stole my wallet is the man running away appears to involve identity. There are those, however, who claim to analyze facts such as this. According to them what is involved here is not identity but the part-whole relation. An entity persists through time, these perdurantists say, by having different temporal segments which are parts of a single whole. The man who stole my wallet – that temporal part – exists for a while, ceases, and the man running

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[1] This characterization does not exclude every other view. Class nominalists, for example, also think the color of this apple (the class of all red things) really is identical with the color of that apple (the class of all red things). It is possible yet to distinguish the views; see Chapter 1, pp. 14-15.

away comes into being.[2] They are "one" man, in a manner of speaking, because their properties have the appropriate affinities.

But, even this is not a view on which identity admits of analysis. The relationship between the thief and the runner on the view is simply not identity. In any case, the relationship between this color and that color, when they are the same, is not like that. True, we sometimes do speak of colors as the same when they are not in fact identical. We may even be prepared to say the colors are the same – not just that they appear so – when we can see that they are not identical. These are cases, I would argue, in which sameness of color amounts to sameness of *type* of color. So that, if this color and that are very much the same shade of blue, they may count as the same color even though they are not the very same shade. My claim is that when this color and that color are the very same shade of whatever color, there is really only one entity involved – the relevant shade. Indeed, so says the view, when this and that shade are the same they are identical to the same degree and in the same way as my nose is with itself.

That this view is something more than a platitude, that it has somewhat surprising consequences, may be seen from the following. If this apple and that apple have the same color, then if the color of this apple is destroyed, so is the color of that apple. Yet it is surely possible for this apple to cease without that one ceasing. And if this apple ceases its color does also, does it not?   I consider this and other puzzles in the first chapter.

The second aspect of the theory also deserves elaboration. There are at least two kinds of views which are incompatible with the one described. One view holds that blue would exist even if nothing blue ever did, does, or will. This is probably the most common Platonist view in the tradition. Another view holds that blue would exist even if

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[2] Some perdurantists insist that though the facts are as I describe, the description "the man who stole my wallet," for example, almost certainly refers to the temporally extended whole rather than some fleeting part thereof. But the ontological facts are no different on this view. See van Inwagen (2001).

nothing blue does, so long as something blue has or will.[3] The view I presuppose, which

I happen to believe, is that in order for blue to exist something blue must exist now. This

is so because, first, blue must be exemplified some way or other in order to exist. And,

second, this is so because nothing exists except what exists now.

Unsurprisingly, whether and how universals are temporal depends not only on

what universals are but on what temporality amounts to. Something is temporal, to put it

briefly, insofar as it exemplifies a temporal "feature."[4] Such features may be divided into

three main categories. Something may be temporal by being at a time: this includes

being today, yesterday, or at this time. This category also includes dates, such as being

on Tuesday, June 16, 2004. The second category includes what C. D. Broad (1933)

called the "extensive" aspect of time: precedence and succession, three hours before,

three hours later. Finally, temporality includes being present, past, or future – Broad's

"transitory" aspect. [5]

Times are not to be confused with time. Time is more than just times. The

phenomenon of *a* time may be recognized in such circumstances as when someone

cannot be offered a job at *this time*. Time is involved in such circumstances as that

Eisenhower was president after Roosevelt, which does not *obviously* involve times. As

there is this time, so there seem to be other times. The time when I fell and scraped my

knee is differed from the time when I visited Kansas. Nor should it be assumed that there

is a straightforward identity between dates and times. This time is June 18, 2004, but it

may be that this time would exist even if June 18, 2004 did not. For example, it seems

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[3] Armstrong (1979).

[4] I leave open the possibility that some of these are not features in the way that red is.

[5] Since these very features also have some claim on being temporal, we need a fourth category: Something
may be temporal insofar as it is constitutive of time. Precedence is temporal insofar as (if it is) it is an
ineliminable element of time. Thanks to Richard Fumerton for pointing this out.

essential to June 18, 2004 that it be connected to the birth of Jesus; this time does not seem so connected.

The question whether universals are temporal may be profitably resolved into the questions of how universals connect with each of these temporal features. Concerning the relation between universals and times the central question is whether universals are at them. Analogously, the central question concerning the relation between universals and precedence is whether universals precede. Precedence, much more than a time, seems to have the character of a feature. Pairs of entities may resemble each other insofar as they are all connected by precedence. A time, on the other hand, seems more substantial – like a cup rather than its color. And finally, the question concerning the connection between universals and transitory temporal facts is the question of whether universals are present, now, or past.

Both the phenomenon of times and that of precedence are characterized by the third, or again in Broad's language, "dynamic" aspect of time. One thing may precede another. One thing may have preceded another. Or one thing may be going to precede another. There may be a time at which something is occurring, or there may have been such a time. Temporal phenomena are characterized by (the ontological analogue of) tense. Being blue is one thing whether it is here or over there; it matters ontologically, on the other hand, whether something is blue, or was blue.

There can be no settling the question whether universals are temporal without addressing what it is, for example, for one thing to precede another. Although the point of this document is to discover how universals connect with each of these three temporal categories, I devote a considerable amount of space to an investigation of these categories as such.

The answer to the problem is not in itself original. Agreeing with such luminaries as Plato and (one incarnation of) Russell, I argue that universals are not temporal. Specifically, universals are not at times, they do not precede, and they are not present.

But, crucially, as found in Russell (1959), this view appears to have rested on the thought that blueness – the universal – and the color of this floppy disc are not one entity. On the *in re* realism I assume, unlike Russell's Platonism, universals seem to be elements of the world. The color of the cup seems to be a part of the sensible world as much as the cup itself. Since the cup is evidently a temporal entity, so also must the cup's color. The very fact that universals are *in re* seems to entail that they are temporal.

A Methodological Digression

I want to discover the nature of time, for example. Where should I look for evidence about this? Among the possible sources are these: my (or the) concept of time, my (or the) experience of time, current scientific thinking about the nature of time, or language about time. Philosophers tend to fall into different camps depending on which of these they choose as their primary source of evidence. Since at several points my metaphilosophical inclinations manifest themselves, I offer these tentative suggestions concerning which camp I find most accommodating.

Again and again I base my arguments on linguistic evidence. I argue, for example, that it is obvious, on the basis of the language alone, that red could not be before the World Series. But although I naturally incline toward linguistic evidence it is not because I believe language has a privileged evidential position in philosophical investigations. In fact, I think the linguistic evidence is as it is for the most part, and in this case, because it tracks our experience of the phenomena. This certainly isn't always so; there are linguistic accidents.

My procedure is often as follows. The linguistic evidence strikes me one way. I check my experience to ensure that the linguistic evidence is not the result of some grammatical superficiality. I then draw a tentative conclusion about the phenomena.

Two questions about this procedure seem to need answering: is this checking of experience *a priori* or *a posteriori*? And is there any other possible recourse to evidence after this procedure? Since the entity consulted is *experience* it would seem at first

glance that the endeavor must be *a posteriori*. The hope, however, is that when successful, the endeavor yields truths about the phenomena that are not indebted to their specific manifestation in this or that experience. Indeed an effort is made to ignore such possible vitiation.

And there are, in answer to the second question, always dialectical checks and balances on the dictates of experience. If a careful search of my experience yielded strong evidence that time did not exist, dialectical consideration would compel a second look. Even should this yield the same conclusion, the dialectical disadvantages may be so ominous that the conclusion would be rejected no matter the experiential evidence.

<div align="center">The Solution</div>

To be temporal, I said, is to have a temporal feature – to be before, to be at a time, or to be present. Universals are not temporal in this sense. The only temporal entities are states of affairs – exemplifications of properties by something. Paul's being mad is an example. Only states are temporal because the temporal is the dimension of occurrences. The exemplification of a property is a happening. From this it follows straightforwardly that universals are not temporal. Paul may be angry before Pam forgives him; Paul may be angry at this time; and Paul may be angry at present. But his anger is not before Pam's forgiving him; his anger is not at this time; nor is his anger present.

Surprisingly, at least initially, it also follows straightforwardly that Paul is not temporal. Paul is no more a happening than his anger. Paul is no more the exemplification of a property by something than his anger. Therefore, Paul is not before anything, he is at no time, and he is not present. This fact is only initially surprising, as I say, since if you consider only the linguistic evidence you will find it very difficult to think of a circumstance in which you would have occasion to say that Paul is, for example, before something or other.

It is surprising that Paul, and other ordinary particulars, are not temporal. It is also surprising, as I noted, that *in re* universals should not be temporal. The surprise with

which these doctrines are greeted may be explained by the special relationship ordinary particulars and *in re* universals have to the states of affairs that are temporal. Paul is a constituent of Paul's being angry; so is his anger. Paul and his anger participate in something which is temporal. Paul and his anger may therefore usefully be judged *derivatively* temporal. As sentences have truth-value only because of their connection to thoughts and are therefore derivatively true or false, on some views, so universals and ordinary particulars are temporal (in a manner of speaking) in virtue of their connection with those things which are temporal *tout court*.

CHAPTER 1

WHAT PROPERTIES ARE

<u>Properties: A Typography</u>

Consider two red apples, this one and that one. Suppose they have no overlapping spatial parts. It seems intuitive to say they have something "in common." This is red; as is that. Each apple has red, which the two have in common. But how can distinct objects have something in common? Siamese twins have parts in common. But this cannot be the phenomenon before us, since I have assumed that this apple[6] and that one have *no* overlapping spatial parts. Thus is born the problem of properties (more on the unusual terminology anon).

Not every problem concerning properties is the problem of properties. All colors are the same insofar as they are colors. They fall into a range. Red and blue and yellow have something in common because they are colors. Further, there are shades of red which have something in common insofar as they are such shades. The same can be said of each of these shades. But, it seems plausible to suppose, there is some level at which a property admits no further determination. Unless otherwise noted, it is to the nature of such absolutely determinate properties that the discussion here is directed. And among these, Section VII of this chapter aside, properties of first-level particulars such as trees or tomatoes are the main focus of attention.

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[6] Again and again it will prove useful to appeal to examples in the course of explaining and defending my distinctions and claims. As in this one, the examples are almost always about physical objects. My examples presuppose that physical objects are by and large as they appear to the naïve. Those with scruples according to which, because of their intimate connection with either the possibility or actuality of experience, physical objects are not what they appear are beseeched to substitute their own favored particular entities in examples. Those with scruples according to which, because of the findings of physical science, physical objects are not (either at all or quite) as they appear are beseeched to substitute their own favored entities in examples. In some cases such substitution will not yield substantive change in the conclusions to be drawn; in some, it will. I try to address as many of the latter cases as I can think of.

The problem of properties is, as I understand it, the traditional problem of universals. The former terminology is preferable, however, since it more nearly[7] avoids begging questions from the outset. "Property," as here employed, designates whatever accounts for the qualitative commonality of different entities. It is intended therefore to be above the polemical fray.[8] One view about properties is that they are universals. If the terminology of universals is chosen, the fundamental question is whether they exist. If the terminology of properties is chosen, the fundamental question concerns their nature.[9]

Solutions to the problem fall into groups. Class nominalists identify properties with classes. Foremost among the advocates of this view is Anthony Quinton (1957-58), who proposes reducing properties to *natural* classes. For A to be red, on his view, is for A to belong to a certain natural class; loosely speaking, the red things.[10] On Quinton's conception, naturalness is a fundamental category – it cannot be understood in terms of anything else. The resemblance nominalists agree that classes are the key to solving the problem of properties, but they believe they can understand the naturalness of a class in terms of something else, namely, resemblance. Foremost among these is H. H. Price (1953), who holds that for A to be red is for it to resemble a class of paradigm objects at least as much as they resemble each other. Nominalists generally try to make do with particulars – things like lamps, tomatoes and trees. They try to *reduce* properties to entities like these.

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[7] But not entirely: Goodman and Quine (1948) and Ludlow (1999) among many others deny the existence of properties altogether.

[8] The same applies to "quality," "feature" and their cognates. These also are used to encompass both one- and many-term characteristics.

[9] Campbell makes the same point (1990).

[10] I say loosely since it would be fatuous to reduce the property of being red to the class of *red* things. It would be as if one tried to reduce justification to justification – a project sure to be successful, but hardly worth the effort.

Platonists and trope theorists take property as a primitive category. Platonists think the key to the problem is to see that properties are substantial. That is, properties may exist though they have no instances. This is crucial. Even in cases where properties do have instances – where this apple is red, say – the redness is not to be confused, it seems to follow, with what is in this apple. In certain ways, trope theory and Platonism are about as far removed as two theories about the same subject matter can be. Trope theorists hold that properties are not at all removed from the world of sense and space and time. They are instead the very elements of it. Properties for them are tropes. Like the nominalist's particulars, tropes do not recur. Call this apple's redness this color – that one's, that color. On this view, this color and that color are the "same" property, albeit numerically distinct. This seems to be an essential element of taking properties to be tropes.

These four views are considered only by the way, though. There is no universally accepted felicitous name for the view that is the primary object of this inquiry. Call it then, with a nod to the medievals, *in re* realism.[11] The view involves two theses: if two properties are the same, if this color and that color are the same, they are identical – one, and not two. Second, a universal cannot exist unless exemplified.

In re realism faces a problem. On its most general version, with which I am *not* here concerned, the problem is to explain how apparently wholly *distinct* entities can have in common an *identical* qualitative part. A more specific version of the problem, with which I am also *not* here concerned, is to explain how two spatially separate entities can have the same property in the sense required. Still, it is worth considering this spatial objection in more detail since it has important structural resemblances with the objection I will be concerned with parrying.

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[11] I will sometimes refer to the view as "realism" and call its advocate the "realist," for short.

To see the spatial objection, suppose this apple and that one are on different shelves in the refrigerator. Provisionally, I conclude that this apple is not the same as that one, since a physical object cannot be in more than one spatial location at once. Next, notice how this apple's color appears to be "on" this apple. It is spread all over it, as is that apple's color with respect to it. This color, then, appears to occupy a different spatial location from that color.[12] So, this color cannot be identical to that color. The same point may be brought out by noting that this color and that one appear to bear irreflexive spatial relations to each other. Since being a foot away from is irreflexive, this color cannot have it to itself – in other words, to that color.[13]

I mention the spatial problem for expository purposes alone. The problem this inquiry is aimed toward explaining and resolving concerns particular objects insofar as they are temporal. It is at the same level of specificity as the spatial version of the generic problem I mentioned. For reasons that will become clear in Chapter II it is necessary to shift the example. Suppose then that two sounds, this sound and that sound, are temporally apart. This supposition should not affect the possibility that this sound and that one may have, say, the same tone. But realism seems to threaten this possibility. Just now I noted that this color (the color of this apple) appears to be located on this apple – so it seems to be at the same spatial location as it. But this tone (the tone of this sound), if *in re* realism is right, should also to be located in time. Since this sound occurred several weeks ago, say at t1, it seems reasonable to suppose that this tone was also located at t1. But the same reasoning applies to that tone (the tone of that sound). Say that sound occurred at t3, which followed t1. This sound, therefore, preceded that one. This tone, by the reasoning just sketched, preceded that tone. But two things can't be the

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[12] Compare Grossmann (1983).

[13] This is an amended version of Russell's (1956) argument for the existence of what he calls particulars. The argument also makes an appearance in Plato's *Parmenides* (1989, 131b)

same if one precedes the other. It follows, finally, that on *in re* realism if one entity precedes another it is impossible for them to share a property. The point may be generalized. In addition to precedence among temporal relations there is succession. Precedence and succession are both kinds of temporal distance. So, if two entities are temporally distant, and realism is true, it is impossible for them to share a property. This would be a devastating problem.

I think some specification of *in re* realism is true. The most general aim of my dissertation therefore is to resolve this problem. The main aim of this chapter is to spell out realism in some detail and sketch some possible specifications. Note well: my primary aims are not at all exegetical. I believe I can defend the thesis that some philosophers have been realists. But much more importantly I think the view is in the background of most discussions of the problem of universals. Typically, therefore, I write of what the realist should say – not what he has.

In Re Realism and its Competitors

In re realism is typically and unsurprisingly classified alongside Platonism as a version of realism. They are realist theories because they accept universals. Since nominalists identify properties with particulars they deny the existence of universals. They are therefore anti-realists. Trope theorists are more difficult to classify. By the criterion just adumbrated they are anti-realists. But classifying them with nominalists perhaps obscures more than it illuminates. After all, trope theorists do not *reduce* the category of property to any other. So it is not immediately obvious just which views are the *in re* realist's closest allies, and which its most distant foes. Fortunately, since this is not an introductory text on the problem of universals, such superficial classificatory problems may be safely left unresolved. I intend, instead, to spell out the idiosyncrasies of this view by contrasting it with the tenets of its competitors. But beware: it will become apparent that the principles I propose here are not to be construed as strictly necessary conditions for the acceptance of this kind of realism.

Realism's most distant foe is nominalism. In trying to understand the nature of this color, the realist thinks, one need go no further than this apple. The color of this apple is all that there is to this color. On the paradigmatic nominalist views, however, one *could not* gather the nature of this color from an inspection of this apple alone. The natural class nominalist, for example, identifies this apple's being red with this apple's membership in the class of red things. The class of red things is not this apple. Nor could it be, since this apple is not a class. The nature of the property therefore could not be exhausted by what is "in" this apple. At this level, metaphors are both unavoidable and often illuminating. David Lewis is on to an important one when he writes of features such as being a donkey that, from the class nominalist perspective, "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" (1983, p. 46).

Without the thesis that properties are something like constituents[14] of qualitatively complex entities such as apples, *in re* realism would not be an "*in re*" conception. But what could it mean to say that properties are constituents of the things that have them? The claim that properties are *in re* – that they are constituents of the items that have them – includes both a metaphysical and a phenomenological component. One of the metaphysical elements is typically the assertion that properties cannot[15] exist unexemplified.

But perhaps it is possible to have a view completely in this spirit but which does not involve that assertion. Take Russell's (1940) onetime view that particulars are composites of universal properties. On it, this apple and that one have the same shade of color only if this color is numerically the same as that. This reflects the "realism" of the

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[14] See Armstrong: "We can think of a thing's properties as constituents of the thing" (1988, p. 77).

[15] In a sense at least as strong as that involved in the fact that something red all over cannot be at the same time blue all over.

view. To be a particular, on this bundle theory, is to have the right composite of universals brought together. Now, it seems this color would exist even if it weren't bundled with this shape. One could hold, also, that this color could exist even if it weren't bundled with any other property. If a bundle theorist allowed this possibility he could still have a realist view. Yet universals, on his conception, could exist unbundled, and therefore, unexemplified.

But, it might be complained, a universal that exists unbundled does not really exist unexemplified. The claim that universals can exist unexemplified is typically associated with Platonism. On the Platonist conception, universals are substantial entities. When the Platonist allows the possibility that universals may exist unexemplified, he seems to be conceding the possibility of a *substantial* existence for universals apart from the things that have them. Platonist universals are in a sense ontologically on a par with the particulars that have them. On Plato's view, indeed, they have even more "being" than mere particulars. But the story for the bundle theorist of the sort in question is quite otherwise. These universals are elements of the things that exemplify them. When they exist "unexemplified" they do not exist apart from other particulars.

The main question here is whether there is an essential connection between unexemplified and substantial existence. There seems to be a not uninteresting sense in which an entity can exist unexemplified even though it is insubstantial.

Here are two alternatives for the bundle theorist. First, he can hold that particulars are bundles of universals which can exist apart from being bundled. But he might concede that such universals must enter into some relations. For example, he might hold that unbundled universals must have spatial location. Second, he can hold that unbundled universals may exist apart from any relation to another universal. (The universal in question might be allowed to exemplify some monadic properties, though.)

The second is obviously a view on which universals can exist unexemplified. In the scenario imagined nothing could be plausibly supposed to be the universal's exemplifier. But this is a somewhat farfetched scenario. The first, however, is both more plausible and interesting. On it, it is possible for a universal U to exist unbundled. Yet, also on the view, it is impossible for it not to have some spatial location. Since some universals are bundled while others are not, bundle theorists must provide some account of the difference between the two situations. The most plausible way to do this is to postulate a bundling relation, B. Now, though many of the universals in the second scenario may have B to each other, none has it to U. That U has spatial location does not affect the question whether it is exemplified. For, plausibly, to be exemplified on the bundle theory is to be bundled with something.[16]

This is surprising. Prima facie, I would have thought a universal with spatial location must be exemplified. Admittedly, the kind of unexemplified existence for universals that is allowed by the first alternative is fundamentally different from that allowed on Platonism. In the final analysis, it may be argued, the present question reduces to terminological decision.

One competitor to the bundle theory is the view that first-order properties (properties of particulars) are exemplified by non-qualitative entities – call them individuals. Gustav Bergmann refers to them as "bare particulars."[17] It could be maintained, on this view, that exemplification is the *sui generis* connection that obtains (on Bergmann's view, only) between an individual and one of its properties. If this were correct it would turn out that U, for example, does exist unexemplified. But then all the bundle theorist's universals would exist unexemplified, since there are no individuals in

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[16] Setting aside the troubling question of the exemplification of properties by properties. This caveat should also be kept in mind in the following paragraph but one.

[17] Bergmann (1964).

the theory's world to have them. I would prefer to use "exemplify" in such a way that it is logically possible for universals to be exemplified if the bundle theorist is right. But I wouldn't know what to say in response to one who insisted the word be used to denote only the relation between individuals and their properties.[18]

Exemplification

Another aspect of the metaphysical sense in which universals are *in re* may be brought out by considering the reasons why one might hold that universals cannot exist unexemplified. Consider the following argument. No one has ever had a cognitive encounter with an entity of this kind. Therefore, there aren't any such entities.

This is, on the face of it, an unpromising argument. That I haven't seen any pink cows provides some evidence that there aren't any. But, since I haven't looked hard, not too much. Worse, the claims about cows and unexemplified universals are not on a par. On one hand, I am claiming of pink cows that there aren't any. On the other, I am claiming of unexemplifed universals that there couldn't be any.

There is a better argument. Universals, I think, are incomplete entities.[19] This means, negatively, that universals are utterly unlike toothpicks, watches, trees, moons, and toenails. These things have their nature complete in themselves. They do not require the existence of anything else to be what they are. The positive element of this conception is more difficult to explain. And it is in the very nature of the case that it should be so. Our attention is almost always directed to particulars – entities that have various properties together. These things are complete. Yet some phenomena at least hint at the kind of nature I think universals have. As a glove seems to call for a hand to fill it in, so a universal calls for something in which to manifest its nature. Think of a

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[18] Armstrong's (1989) discussion of the bundle theory wrongly assumes it must allow the possibility unbundled universals.

[19] Panayot Butchvarov's (1979) objects, which are, in my view, (albeit nonexistent) tropes, are saturated by other things in a way perhaps comparable to the behavior of universals as here conceived.

chair in which a loved one usually sits. In observing the chair, it seems to call out for something else – for the loved one. Properties are a bit like that chair.

The present conception of universals was inspired by some (very brief) remarks of Price's (1953),[20] where he suggests another simile. Think of a well-formed formula from predicate logic – say, "Fa." This asserts of some entity a that it has the property F. The assertion has significance alone. Contrast it with the sentence "Fx." The expression "x" is here used as a variable. "Fx'" means "*it* is F." This cannot stand alone. Like "he" and other pronouns, "it" is only significant when there is some noun for which it is understood to be doing semantic duty. "Fx" calls for completion by replacing "x" with some denoting expression. Like an expression involving a variable, universals call for completion by something beyond themselves. The simile is especially apt since first-order variables are to be substituted by names for particular entities.

If the images enlighten it should be clear why universals so conceived cannot exist unexemplified. It is in the very nature of a universal to be completed by something else. This being so, it could not very well exist unexemplified.[21] My suggestion is that another way of understanding what it is to construe properties as *in re* is to think of them as incomplete entities. This is the second metaphysical element of the view.

The conception may be clarified by comparing it with a very appealing, though radically opposed, account of the mark of being. As Hume sees it, to be is to be independent – that is, capable of existing alone. If this is right, calling "substances" just those entities that are independent, as is often done, would be trivial, as Hume (2000, p. 153) himself noted. The present conception of universals is a radical departure from his principle. On this view of things, universals, which (*inter alia*) are the very foundation of

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[20] Also in the background are Armstrong's (1978) comments on the most illuminating way of representing properties in language.

[21] Armstrong offers a very similar argument (1997).

the world have no being at all apart from those things which exemplify them. Hume's atoms are like coffee tables and whales; the atoms here envisaged are like variables or rainbows.

Many other philosophers have denied Hume's principle. Armstrong (1978), for example, holds that properties are exemplified by particulars – what he calls "thin" particulars. Although some thin particular t and its property P are wholly distinct, and P is wholly distinct from every (to put it trivially) other thin particular, yet P cannot exist but as the quality of some thin particular. Why should this be? One may say that it is in the nature of a property to be incapable of existing unexemplified. But the Humean principle is appealing, and one is tempted to reason that since a property is wholly distinct from every thin particular, it should be capable of existing on its own.

I don't mean to suggest that this line of reasoning is conclusive. But it does seem to me one owes defenders of Hume's principle an account of what makes properties different – why it is that they cannot exist unexemplified. The present conception aims to provide the required illumination.

A further note: it is natural to think of trope theories as allies of at least this aspect of *in re* realism. Like *in re* universals, tropes are far from transcendent – if this color is a trope it is in this apple. But on many conceptions, tropes fail both conditions just adumbrated.

Like the universals of the bundle theory I examined before, tropes are often supposed to be capable of existing alone. Campbell (1981 and 1990), for example, makes much of this. Other solutions to the problem of properties, he claims, need both universals and individuals – two categories. Since tropes are both properties and particulars, trope theorists combine the virtues of both categories in one. The trope theory therefore achieves an admirable ontological parsimony. And since there is only this one category of entity it is natural to hold that each trope could exist alone, since each is, after all, a particular. Although Campbell later rejects this view (1990), it is the

default position for the trope theorist. On this view, therefore, it is possible for tropes to exist unbundled. In other words, on this conception, tropes may exist unexemplified.

Any trope theorist sympathetic to the view that tropes are independent is also unlikely to be sympathetic to construing properties as incomplete. There is nothing in being a trope, they should think, that demands the existence of some other entity to call forth its nature.

<div align="center">Being "In"</div>

That properties are *in re* is in part a metaphysical claim. I have discussed two components of this claim. One is that without instances a property cannot exist. Another is the related claim that properties are incomplete. The first component follows from the second. The second does not follow from the first. But, as I suggested above, there are dialectical reasons for supposing that the first component is best supplemented by the second.

The third portion of the claim is the thesis that a property is an element of the entity that exemplifies it. It has already become apparent that there is controversy about what it is for one thing to exemplify another. The thesis therefore requires immediate clarification. On the bundle theory, particulars are composites of properties. To be exemplified on the bundle view, I suggested, is to belong to some bundle or other.

But some views of particulars require a conception of exemplification of a different kind altogether. On Bergmann's view, which I mentioned before, exemplification occurs when a bare particular stands in the nexus connection to a universal. This is one of a class of views. Think also of the perhaps bastardized version of Aristotle's view according to which there is a substance to which accidents and essences are stuck. The conception suggests the image of a pincushion and its pins – the substance filling the role of pincushion. So, in honor of Paul Spade, call these pincushion views. The crucial element of these views is that on them (some) exemplification

essentially involves something categorically different from qualities.[22] The other class of views is comprised of bundle theories of different varieties – essentially, views that deny entities other than qualities a role in exemplification.[23]

Suppose again that this apple is composed of this color and this shape. The natural view for the bundle theorist to hold is that the exemplifier in this situation is the collection {this color, this shape}. This color therefore is exemplified by {this color, this shape}. Since this is the general structure of exemplification for the bundle theory, it should be apparent that every property is an element of its exemplifier. This color is an element of {this color, this shape}.[24]

It is rather misleading to say within a pincushion model that properties are elements of their exemplifiers. Call the non-qualitative element in the exemplification complex an individual. On the mainstream pincushion view, properties are not parts of individuals. Bergmann's individuals, for example, are wholly distinct from the properties they have. Such is true also for the popular version of Locke's individual – the substratum. Properties are, to be sure, parts of the complexes made up of both individuals and their properties.

Since I have identified one aspect of the thesis that properties are *in re* as the claim that they are elements or parts of their exemplifiers, the reader might await an analysis of the notion of being a part or element.[25] He will wait in vain. Still, the

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[22] Only "some" since such views may allow the exemplification of properties by properties.

[23] So long as exemplification is construed thus neutrally a third class of views is possible. On this, an exemplifier participates in the exemplified. Platonists' views are of this sort. See also Peter Simons' unorthodox bundle theory (1994). These views play no part in the discussion because none of them involves the claim that properties are elements of their exemplifiers.

[24] What it is for this color to be a part of {this color, this shape} probably depends on what the latter is. Here are some alternatives: class, aggregate, fact, and set.

[25] Aristotle thinks qualities are "present in a subject," though he rejects my conception of the matter: "a thing is said to be present in a subject if, not belonging as a part to that subject, it is incapable of existing apart from the subject in which it is" (1980, 1a22). This is false because though properties are present in

following may seem to some a promising candidate for a necessary condition governing the part-whole relationship.

(P) x is a part of y only if should x be removed or replaced by something else in y then what is left is no longer y.

Thus, this color is a part of this apple only if, should it be removed or replaced by something else, what would be left would not be this apple. The principle has somewhat surprising consequences. If true, it follows that should the length of one of my toenails change just a millimeter my body would be no longer.

This apparent counterintuitiveness in (P) can be countered by noting a common distinction between the loose and strict senses of identity (Butler 1964). According to the loose sense, two entities may be identical even though they do not have all parts in common. But it might be argued that when the notion of identity is applied more seriously it is clear that entities that don't have all parts in common cannot be identical.

Some have complained that there are considerable limitations to understanding the relationship between properties and particulars on the part/whole model.[26] One complaint is that the notion of a part, or being in something, has its primary application in spatial contexts. One thing is thought to be in another primarily when the one is spatially inside the other – as when a couch is inside a room. Since the relationship between a color and an apple does not seem to be like that between a couch and the room it is in, one should beware of the part/whole method of ontological analysis.

The criticism is useful – as a warning. The language of everyday is more at home in small talk than metaphysical treatises. It was probably not constructed with the demands of consistency and precision in mind. The metaphysician should therefore only borrow ordinary expressions after careful deliberation. But the specific criticism seems

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the things that exemplify them, the properties might exist without them: the color of this pen may survive the pen's destruction.

[26] Butchvarov (1970), for one.

to me misguided. I do not know what is the primary meaning or application of such words as "in," "on," "part"; perhaps it is spatial. But that they have a rampant and thoroughly accepted non-spatial use is unassailable. I might say to you that "part of your problem is your insecurity complex." I do not mean that the relationship between your insecurity and your problem is that between the couch and the room. *If* I mean that the relation attributed to you is like that, this meaning is nowhere near the surface of my thought. And once this example is noted others come immediately to (!) mind. When I ask what is "on" your mind I do not seem to require of you that you discover what is there in the way that I might want to know what is "on" your desk. Again, if the preposition was borrowed from an allegedly original spatial use, the loan happened so long ago that the expression has by now acquired a perfectly accepted non-spatial use. In sum, the non-spatial use of these expressions is so widespread and comfortable that the philosopher who takes advantage of it need make no apology for doing so.[27]

  Arthur Denkel (1996) offers a different criticism of the view that properties are parts of objects. Take the color and hardness of the pen. Assuming the pen has just one color, these properties, Denkel contends, "overlap" or "interpenetrate" (*ibid*., pp. 37-38). A overlaps B iff there is a location P where A and B are both spatially located. Although a property need not so overlap other properties to co-inhere in an object, "it is necessary that it should do so with some of them" (*ibid*., p. 39). But this capacity does not by itself distinguish qualitative elements of an object from parts of a whole. Take "one's body minus one's right arm, and one's body minus one's left arm" (*ibid*., p. 39): these spatially overlap. But they only overlap insofar as there are parts of each that are at the same position. When properties overlap there is no such sharing of parts. Therefore, when properties are "in" an object, they are not parts of it.

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[27] Armstrong's (1978) response to the criticism is also in this spirit.

I am inclined to deny that the color and hardness of this pen overlap spatially. If properties may overlap then two entities can be in the same spatial position at once. But since properties lack spatial position altogether, they cannot overlap. Allowing properties spatial position further involves either accepting the possibility of spatial bilocation or a denial of realism. It is possible for the color of this pen to be the same as the color of that pen. If in such cases they are one, and each has spatial location, then it is logically possible for something to be in two places at once. If they are not one then realism is false. I think each of these considerations is a strike against Denkel's complaint.

Further, this objection is only plausible if the color and hardness of this pen cannot be parts of *any* whole. If they can be such parts, then surely they can be parts of the whole that is made up of them together with the pen. Is there any reason to think that the color and hardness of this pen cannot compose a whole? It is futile to suggest that they cannot *because* they may spatially overlap – granting that they do – even though they do not share parts. Why should this be any bar on their composing wholes?

I have suggested that some of what is involved in thinking of properties as *in re* is thinking of them as parts of what they qualify. The alternative to an *in re* conception is a transcendent one. Surprisingly, the view most naturally classified as transcendent is natural class nominalism. On this conception, as I suggested before (pp. 13), properties are not construed as parts of the particulars that have them, but rather particulars are construed as parts of the properties they have. Also on the Platonist conception, paradigmatically, properties are construed as outside of the particulars they qualify.

This is the third and final component of the metaphysical aspect of the view that properties are *in re*. I now proceed to the phenomenological aspect.

The Phenomenological Character of Universals

Phenomenology is broadly construed here. As directed toward the nature of properties it includes the investigation of the phenomena of properties. But this is too broad. More specifically it is the investigation of how properties present themselves in

experience; how they appear. At its most general it includes all kinds of experience, perceptual, conceptual and whatever might come in between. My concern here is only with perceptual experience. Such experience takes place, paradigmatically, when something is heard, seen, or touched. Properties are involved in such experience. That properties are presented in a certain way in such experience is part of the *in re* realist's view. On *in re* realism, properties are *immanent*. I mean this expression to suggest that on the view properties are present in the entities that exemplify them. The assertion that properties are present in their exemplifiers may be in part cashed out by attending to the character of properties as they are found in experience.[28]

What is this character? Earlier, I contended that the color of an apple appears to be "on" it, "spread all over" it (p. 11). Visual objects such as apples, trees, and books have surfaces. The colors of these entities present themselves as on their surfaces. Typically, in visual experience colors are inseparable from surfaces, as are surfaces from colors. I cannot think of entities that appear colored but lack a surface. But no matter: my claim is only that properties are in the things that exemplify them in the way that colors are in the surfaces of visual objects. That (if) there are colors without surfaces does nothing to undermine this contention. If there are exceptions then it is only the *typical* experience of colors which provides content to the notion of immanence.

This is the central experience on the basis of which the phenomenon of immanence may be understood. Qualities are present in the entities they qualify in the way that colors are on the surfaces they color. Since colors are typically on surfaces they are apparently located. They seem to have spatial locations. This is an element of the phenomenological sense in which properties are immanent.

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[28] One dialectically possible alternative is that although experience seems one way or another, there are no experiential seemings in any robust sense. I mean the discussion that follows to be compatible with this possibility. So, for example, although visual experience typically involves what appear to be surfaces, I mean the discussion to be compatible with the non-existence of such apparent surfaces.

This is how the matter stands with respect to visual qualitative experience. It would be useful to discover whether other sensory qualities fit together in the way visual ones do. Unfortunately, the ideal – a thorough phenomenological account of the paradigmatic qualities of each sense – is beyond the scope of the present investigation. Evidently, nonetheless, not all sensory qualities appear to be on something in the way colors appear on surfaces.

Gustatory qualities do not seem to occur on surfaces in the way that colors do. Sweet and sour do not seem to have spatial location in the way that red and blue do. Yet the immanent identity theory must accommodate the possibility that gustatory qualities exist as they appear. Since it cannot do it on the color model, this is, then, at least one of its limitations.

But perhaps the appearance of universals is not a reliable guide to their true character. Since Armstrong's influential work, it has become popular to eschew abundant in favor of sparse properties.[29] An ontologist accepts abundant properties if he thinks there is a property corresponding to every significant open predicate. A sparse ontology includes only those properties revealed to be causally efficacious by total science (or perhaps physics alone). Defenders of the sparse theory of properties typically argue that in matters ontological pride of place should be given to the discoveries of science. And since the manifest image of the world bears hardly any resemblance to its scientific image, what does it matter whether gustatory qualities appear to be present in something like visual surfaces? Or how colors appear at all?

Even if sensory properties have none of the character they appear to have, that they appear to have such a character is a tremendous influence on the metaphysician's attempt to make categorical sense of the world. Even if there were no colors or surfaces, that colors appear to be on surfaces has an indelible influence on the metaphysician's

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[29] The terminology originates with Lewis (1983).

thinking. Furthermore, since the metaphysician's aim is to discover the necessary features of the world, the controversy between sparse and abundant properties is of limited significance (see also pp. 41-43). Even if nothing in the world is quite like colors as they appear, yet there could be such things.

<div align="center">Identity between Universals</div>

I have been elucidating what it is for properties to be *in re*. The second part of the realist view I've adopted concerns the claim that when two entities have the same characteristic the characteristics are identical. What is it for this color to be the same as that color? When two apples have the same color their colors are literally one. The *two* instances of, say, red involve something that is really *one*. This is why on the theory properties are universals.

If this color really is the same as that color then there is only one color there. Sometimes, in such a situation, philosophers and others speak as if there were two instances of one color. This is liable to mislead. Suppose there are two instances, in the sense that this color and that color are "instances" of red. Then this color and that must be two. The trope theorist may consistently adopt this position. Sameness of properties is really perfect resemblance of tropes. The Platonist may consistently adopt this position. In addition to this color and that there is The Color, to which this and that have a special relation in virtue of which they are "the same."[30] But the *in re* realist cannot consistently adopt this alternative. Since the advocate of this view treats qualitative sameness as identity he cannot also allow that some properties are (strictly) the same and yet diverse.

But perhaps the *in re* realist may hold there are two instances in the following sense. Suppose that this color is complex – as is that. Each is constituted by the color-making constituent together with an individuator. In virtue of the color-making

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[30] Cf. Wolterstorff (1970, pp. 128-134)

constituent they are one color. In virtue of the individuators, they are two instances. This view is suggested by J. P. Moreland (2000 and 2001). But the problem arises as before. Is this color-making constituent identical with that? If they are, how can the constituents be two? If not, how is this a theory according to which properties are universals?

I suggest, then, that the language of "instances" be used with caution. Evidently, there are many red things. In fact, there are many reds – *shades* of red. But as I warned early on (p. 8), the discussion will be restricted to absolutely determinate properties. If "instance" is used to refer to properties, there are not many instances of any property. It is as conceivable that there are many of this (absolutely determinate) color as that there are many Venuses. But there is only one Venus. And there could be no more than one. Similarly there is only one of this color. And there could be no more than one. There may be many things which have it, but the color can only be one.

I will continue to use "instance" in such a way that it is possible for there to be more than one of a certain absolutely determinate property. Given this choice, however, an instance of a property is not a property. An instance of a property is a complex involving something's exemplifying the property. There are as many instances of a property as there are distinct such cases of something's exemplifying the property. There are many "instances" of red insofar as there are many examples of something's being red: this apple's being red, that tomato's being red, and so on.

Returning to the matter of identity, the most important question may be put this way: under what conditions is this color the same as that color? The answer is easy: when they are identical. But this answer immediately raises another question: under what conditions is this color identical with that? There are no non-trivial sufficient conditions for identity. There may be a non-trivial necessary condition. This is the principle of the indiscernibility of identicals:

 (PII) If x and y are identical, then x has a property iff y has it.

If proof is desired, the law of non-contradiction should suffice. Suppose x and y are identical. Suppose, for *reductio*, that x has F while y lacks it (for ease of exposition, imagine it has ~F). Since x is y, there is just one thing that has both F and ~F. Therefore, both of two contradictory propositions are true: Fx and ~Fx.

The principle works fairly straightforwardly for monadic properties of properties. If this color is identical with that then whatever monadic properties this color has, that has. It is possible to hold, for example, that each determinate has the property of being a determinate of the higher-level determinable it falls under.[31] Pink, for example, has the monadic property of being a shade of red. Red has the monadic property of being a color.

There is one complication. Suppose a certain shade of a certain color has the property of being complex. Suppose the property of being complex has the property of being a property. I know of no good *a priori* arguments to show that this hierarchy stops. If it stops then there must be some highest-order of properties. If x and y are examples of one of these, they may be the same although they exemplify no monadic properties whatever. But neither of these possibilities presents a difficulty for the claim that (PII) states a necessary condition for the identity of two property instances. If the hierarchy ends, then the consequent of (PII) is uninterestingly true for the highest level properties. If the hierarchy ends, then it remains that at each level in order to be the same properties they must have all properties in common.

It seems intuitive then that if x and y are identical they should have all monadic properties in common. It seems, however, there are *prima facie* cases where x and y are one property and yet they do not have all relational properties in common. Take the color of this tomato in the refrigerator, and of that same-colored notebook on the desk.

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[31] Those who do not believe the determinate/determinable relation works this way, may substitute other examples which serve the same purpose, e.g., the simplicity of pink.

According to *in re* realism, this means the colors are identical. By (PII), to be identical they must have all properties in common. It seems impossible that this color and that color could have all properties in common. One problem is that this color seems to be in the kitchen, while that is in the living room. If they have different spatial locations, they have different relational properties. This problem I have already touched on (p. 11) and will say no more about.

Over time, the tomato may change its color. First, it has this, then that color. It seems this color occurs now, while that occurs later. This color has the relational property of occurring now, which that lacks. They cannot be identical if one has a relational property the other lacks. This is the problem my dissertation is supposed to solve. I will say no more about it here.

It is possible for me to turn my attention to the color of this tomato. I can see it, for example. It also seems possible that I see the color of this tomato, but not that of the notebook. When this happens, this color has the relational property of being seen by me. That color does not have it (see Wolterstorff 1970, p. 139).

But of course it is possible not to notice *that* the color of this tomato is the color of the notebook. This in no way affects the possibility that this color *is* the color of the notebook. It is possible to see a man on the street but not see that he is the man who stole my wallet. The man I see may be a thief, nonetheless. Similarly, when I see the color of this tomato I also see the color of the notebook. But the fact that the color of this tomato is the color of the notebook goes unnoticed.

The difficulties just discussed may be as nothing next to the following, though. Remember the bundle theory of particulars: on it, ordinary particulars are collections of properties held together by a bundling relation. The color of this tomato is bundled with a certain shape – a roughly spherical shape. This color has a certain relation to this shape. The color of that notebook is bundled with a certain rectangular shape. This color is bundled with a spherical shape, which that color is not. So this color has a relational

property that color does not. The same may be said of that color in its relation to this. How can this color be identical with that when each exemplifies a relational property the other doesn't?

The difficulty can be raised for other theories in a similar way. Suppose (first-order) properties are not bundled with other properties, but are exemplified by individuals – non-qualitative entities. Since this tomato is not identical with that notebook, the individuals that respectively constitute them must be diverse. This color and this shape are exemplified by this individual. That color and that shape are exemplified by that individual. This color and this shape are co-exemplified, as are that color and that shape. This color is not co-exemplified with that shape, nor is that color with this shape. So, again, how can this color be identical with that color when each exemplifies a relational property the other doesn't?

I think there are two things that need to be noted here. One is to insist, appearances notwithstanding, that the color of this tomato *is* co-exemplified with the shape of that notebook, if the color of this tomato is the color of that notebook. Perhaps the reason this might cause one to recoil is that there is an assumption that co-exemplification is a transitive relation. If this color is co-exemplified with this shape, and this color is co-exemplified with that shape, and co-exemplification is transitive, then this shape is co-exemplified with that shape. But material particulars, at least, exemplify only one among the many incompatible shapes. But since there is not much to be said for the hypothesis that co-exemplification is transitive, there is no great need to worry about this consequence.

Further, though it is apparent that this color is co-exemplified with this shape, it is not apparent that this color is *not* co-exemplified with that shape. That this color is co-exemplified with this shape or, better, that this color has some close association with this shape, cannot be doubted. But there must be some argument to reach the conclusion that this color is *not* co-exemplified with that shape. Upon noticing that this color is

associated with this shape I may fail to take in the fact that it is so also with that shape. But that I fail to notice this fact in no way precludes its being there to be noticed.

The second point concerns the unique status of exemplification and, therefore, of co-exemplification. This is probably the sorest point for an ontology with individuals. The defenders of individuals face an apparent dilemma. If exemplification is anything it seems to be a relation. But there is an old argument which purports to show that exemplification cannot be a relation.[32] Suppose exemplification is a relation that relates a monadic property, P, and an individual, i, for example. When P is exemplified the relation of exemplification is also exemplified. Since P is connected with exemplification there must also be a relation of exemplification between the two. The same goes for the relation between i and exemplification. But now the connections between entities and the exemplifications they are connected to branch off in indefinitely many directions.[33]

So exemplification, and therefore co-exemplification, cannot be a relation. But there are compelling reasons for thinking exemplification is something. The way things are this tomato has this shape. It could have had that shape. Things would have been different if the tomato had had that shape. Something about the tomato, specifically, would have been different. Giving exemplification some ontological status would explain this phenomenon nicely. The two situations differ because in one the tomato has the exemplification tie to this shape, and in the other to that shape. Further, this would explain why it is apparent that there is some close "association" as I called it that holds this shape with this tomato. But the previous paragraph showed that exemplification can't be a relation.

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[32] Though this argument is often attributed to Bradley (1897), his critique is directed at relations in general.

[33] A similar problem arises if one construes bundling as an ordinary relation.

On Armstrong's view (1997, p. 28), which seems to me the most promising, exemplification is nothing at all. There are, evidently, facts that involve the exemplification of some property by an individual. But the exemplification is no element of the fact apart from the property and the individual. Armstrong appeals to the incomplete (or, as he calls it following Frege, "unsaturated") character of properties to explain how properties fit with individuals. Corresponding to the truth that the individual i is red, one might think, there is i, redness and some correlate of the copula. But the worldly correlate of the copula, on his view, is built into the character of a property. Redness, for example, is best semantically represented as ____'s being red. This makes it more apparent that once filled in with the name of an individual the whole construction picks out a complete fact.

According to the *in re* realist conception of properties, this and that property are the same only if they are indiscernible. If this principle, (PII), is to be defended, it must be shown to be compatible with the facts of recurrence more or less as they seem. One thing that is clear is that recurrence is fairly common. I have shown in the last few pages that it is possible for recurrence to be thus common even if sameness of properties is governed by (PII). It might seem promising to argue that the converse of (PII) is also true. That is, coincidence of properties is a sufficient condition for identity. Somewhat more formally there is the principle of the identity of indiscernibles:

(PII*) Necessarily, if x has a property iff y has it, then x is y.

One way to show this principle is false is to think of this property and that property, which exemplify no properties. This seems to be a logical possibility. If there are no second-order properties, no properties exemplify properties. If this property and that property exemplify no properties, the antecedent of (PII*) is true. Therefore, this property is that property. They are identical. But this need not be so. This property and that property may not be identical even though they exemplify all the same properties – namely, none.

The present argument is weakened, I know, by its extreme abstraction. What are the most likely candidates for properties of the highest order? Since this is an instance the general question concerning the status of higher-order properties, which this document leaves largely undecided, it must also be left unanswered.

Another way to show (PII*) is false is to think again of this property and that, now with all the same properties. It seems logically possible that this property and that property, though both determinates of the same determinable are distinct. Yet, it also seems logically possible that they have all properties in common, monadic and otherwise. It must be admitted, though, that this scenario is most plausible if properties do not enter into spatial relations.

Part of what is involved in the fact that properties are universals is that the properties that constitute different instances of a single universal are really identical. Identity of properties, I contend, is governed by the principle of the indiscernibility of identicals. Now, there is a question whether the identity involved here is the same as that involved when two material particulars are the same, or when two classes are the same, or when two individuals are the same. One might contend, for example, that material particulars are like properties in that they must also have all properties in common to be identical. But material particulars, the thought continues, must actually be spatio-temporal, unlike properties. This might be a significant departure from what is involved in the identity of material particulars and properties.

Although this is a controversy of the utmost importance, I fail to see how anything about *in re* realism forces one answer or another to this question. *Qua* realist, one may hold that there are one, two, or even more kinds of identity. That said, I cannot resist noting that it seems to me incredible that there might really be more than one kind of identity.

Higher-Order Universals

I have discussed what makes for an *in re* account of properties. I have also discussed what it is to treat properties as *identical*; in other words, what it is to hold that properties are universals. The rest of the chapter concerns somewhat peripheral matters. First, what, if anything, is this theory of properties committed to on the question of higher-order properties? Second, what, if anything, is it committed to on the controversy between sparse and abundant properties? And third, what, if anything, is the theory committed to on the controversy concerning the nature of particulars?

These questions are related. If there are only sparse properties – there are only those properties which contribute to the causal character of the things that have them, say – then it is somewhat less plausible to suppose that there are higher-order properties. There is some reason to believe, also, that higher-order properties are more difficult to fit in to a bundle ontology of particulars. If higher-order exemplification is to be understood on the model of first-order properties then for a property to exemplify a property is for the higher-level property to be bundled with certain other higher-level properties. Could this be plausible?

To begin with the matter of higher-level properties: could the *in re* realist consistently hold that there are higher-order properties? Could he consistently hold that a certain determinate shade of red exemplifies the property of being simple? The questions may be compartmentalized. First, could the property of being simple be *in re*? There are two parts to the claim that properties are *in re*. They are *in re* both because of their metaphysical and because of their phenomenological character. Three claims are involved in the metaphysical assertion. Properties cannot exist unexemplified. Properties are incomplete. And properties are elements of the entities that exemplify them. Properties are also *in re* because of their phenomenological character. This means that properties belong to the things that have them in the way that colors belong to the surfaces they color. Next, there is the question whether higher-order properties are

identical in their various instances? This, I contended, can only be the case if this and that property themselves have all, if any, properties in common.

Higher-order properties can be metaphysically *in re*. There is nothing formally inconsistent in holding both that there are higher-order properties and that they must all be exemplified to exist. There is also nothing in the spirit of the one assertion that would lead one to withhold assent to or deny the other. When I was discussing the matter as applied to first-level properties (pp. 13-16), I admitted the possibility of denying that they must be exemplified to exist yet espousing an *in re* theory. There are both pincushion and bundle accounts of particulars. On a pincushion account, properties are exemplified by something that is not a property. On a bundle account, properties are exemplified by being bundled with some other properties. I argued that the bundle theorist could hold that it is logically possible for some properties that are typically bundled with other properties to exist even though when not bundled. These properties, might, for example, have spatial or temporal location even though they are not found with any other properties. These would be, I suggested, good candidates for unexemplified properties. Yet such a theorist would still hold that properties are *in re* in the other senses identified.

But even though such a possibility should be allowed it is not likely to be extended to higher-order properties. Perhaps it is distantly possible for a certain color to exist at a location even though it is not located with any other property. But it is much less plausible for the bundle theorist to defend such a possibility for a property like being simple. In any case, the paradigmatic account of *in re* existence demands that properties be exemplified to exist. And this is compatible with the view that there are higher-level properties.

Second, higher-level properties seem as incomplete as their first-level counterparts. Properties are incomplete, I suggested, in the sense that they require something else in order to manifest their nature at all. This conception can, with some complications, be extended to higher-level properties. The property of being simple may

be construed as incomplete as straightforwardly as redness, say. Higher-level properties can be held to be no more like complete entities than first-level ones.

Here are the complications. If the pincushion theory is true, first-level properties are completed by individuals. If the bundle theory is true, first-level properties are completed by the other first-level properties with which they are bundled. If there are higher-order properties, the possibility that they are completed by the lower-order properties that exemplify them must be allowed. But there seems to be no difficulty in principle with allowing this.

One difference, however, between first-level and higher-level (monadic) properties is that the former are typically exemplified contingently while the latter probably never are.[34] This pen is red. But it could have been blue. Red, on the other hand, is simple and it could not have been anything other than simple. In order to be complex, say, it would have to be some other property.

This difference makes no difference. It is no essential component of the *in re* conception of properties that they be exemplified contingently. Some first-level properties, in fact, may be necessarily connected with the things that have them. There is a distinction some have drawn between substantial features and others. The substantial features of a thing are those the having of which determine what a thing is. They determine the natural kind a thing belongs to. For example, something may be both brown and a horse. The fact that it is brown does not determine the kind of thing it is. That it is a horse does, though. Moreover, according to some defenders of this distinction, substantial features are necessarily connected with the things that have them. If something is a horse, it could not be any other kind of thing – such as an asteroid or an electron. Non-substantial features – accidents, call them – are had contingently. A

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[34] Not that higher-level monadic properties are necessarily exemplified. Suppose only red is simple; then if nothing were red, nothing would be simple. But simplicity is "necessarily exemplified" in the sense that if red exists at all then it must be simple.

certain horse would remain the same even though it were black instead of brown. All of this is straightforwardly compatible with *in re* realism. The *in re* conception of properties, then, has no special difficulty accommodating the necessary connection between higher-order features and the things that exemplify them.

According to the third component of the metaphysical part of the view, properties are *in re* insofar as they are elements of the things that have them. I suggested this means that (first-order) properties are parts of the particulars that have them. It looks as if this aspect of the conception is going to be difficult to extend to higher-level properties. Red's simplicity does not seem to be in red in the way that red is in the tomato. But the same distinction that was of use in defending this conception of properties before will be of use here.

On the pincushion model, the assertion that properties are parts of their exemplifiers must be treated with care. Strictly, on this model, what exemplifies this color is not this tomato, but this individual. This individual, unlike this tomato, is not complex. It therefore could not have a property as an element. Within the pincushion ontology, properties are parts of the things that have them in the sense that they are elements of the complexes made up of both individuals and their properties. These complexes I have called particulars. On the bundle theory, particulars are also complexes. But on this view the complexes involve no non-qualitative element. Properties are parts of the things that exemplify them, on this conception, because they are elements of the complexes of co-bundled properties.

Since there are these two conceptions of exemplification, one can try extending either to higher-level properties. If higher-level exemplification is understood on the pincushion model, the doctrine that properties are elements of their exemplifiers falls out fairly straightforwardly. There is red and there is its simplicity. Its simplicity is a part of what exemplifies it in the sense that it is part of the complex, red's being simple. It is not, to be sure, a part of red. This is as it should be. In the first-level case, properties are

parts of their exemplifiers because they belong as elements to the complexes involving both individuals and their properties.

The bundle conception may also be extended to higher-level properties. Red is simple insofar as its simplicity is bundled with its being a color and its being a property. But since this is an *in re* account red just is this color. This color is bundled with this shape and this size. It seems to be the case that being a color is bundled with this shape and this size. Finally, it would seem to follow that this tomato is a color, since being a color is one of the properties bundled in it.

The bundle theory is a reductive account of particulars. It identifies particulars with a kind of thing that is made of qualitative elements alone. Upon analysis this tomato is dissolved into qualities alone. But the analysis cannot work this way for higher-level exemplification. It is not plausible to identify red with any complex of qualities. Indeed, on the bundle theorist's conception some properties at least must be admitted as ontologically fundamental. The bundle theorist seems to be forced to treat the exemplification of properties by other properties not on the model of the co-bundling of properties at the same level. Instead the phenomenon must be understood in terms involving both the lower- and higher-level properties, in much the way the pincushion theorist understands all exemplification.

Let us develop this argument in somewhat more detail. Red, it would seem, is both simple and a property. Red's being simple, on this view, just is for simplicity to be bundled with all the other properties red has – in this case, being a property, for example. There is then a bundle made up of simplicity and being a property that constitutes red's nature. Since red is also bundled with this shape and this color, it appears to follow that the bundle that constitutes red is bundled with this shape and this color. But it is at least counterintuitive that bundling is the sort of connection that can link both properties and bundles of properties.

Further, since particulars are identified with bundles of properties, there seems to be a difficulty in denying that the bundle of properties that constitute red form a particular. Evidently, red is a property. But, on this view, it is a bundle of properties just like ordinary particulars. How, then, is the one kind of thing to be distinguished from the other? There is some reason, then, to suppose that the following triad, if not outright inconsistent, is in some tension: the *in re* conception of properties, the admission of higher-level ones, and the bundle theory of exemplification.

Higher-level properties may be construed as existing only when exemplified, as incomplete, and as parts of the things that have them. These are the three components of the metaphysically immanent character of properties. There is now the question whether higher-level properties are phenomenologically immanent. Earlier I noted that, as I conceive it, phenomenology concerns the character of both perceptual and conceptual experience. I suggested, however, that the content of an *in re* conception of properties is derived from perceptual experience. Specifically, it is derived from the experience of the relationship between colors and the surfaces that have them.

Although there are significant differences between the phenomenology of first-level and higher-level properties, I think the immanent conception of the former can be extended to the latter. The first difference is that although the experience of first-level properties is primarily perceptual, that of higher-level ones is conceptual. Colors and shapes are primarily seen; pitches and timbres are primarily heard; sweets and sours are primarily tasted. Complexity and simplicity, however, are primarily objects of thought. But this difference does not preclude an immanent treatment of higher-level properties. After all, that first-level properties are also conceived and not only experienced in no way bars their being phenomenologically immanent.

One way to be reassured that higher-level properties can be treated as phenomenologically immanent is to consider the alternative. If properties are not immanent they are transcendent. What is it for a property to be experienced as

transcendent? Primarily this involves their having a substantial character. Properties are phenomenologically transcendent insofar as they appear to exist independently of other things. It is evident that it is possible to deny that higher-level properties are phenomenologically transcendent.

As H. H. Price noted (1953), there is a tendency to misleadingly understand conception on the model of perception. In perception, it seems one's attention typically is met with an object. There is something that is the accusative of the experience. When I see, generally, there is something that is seen. Conception, one might think, must be like this. It is also a kind of awareness. But conception is supposedly awareness of an object that need not be spatially present.   If asked to fetch the reddest tomato from the grocery store, it might seem as if I must have before my consciousness red itself, in somewhat the way that I have a tomato before my consciousness when I look at what I take to be the reddest one.

But conception is rarely like this. It is mostly a capacity. Thinking of redness as I walk down the aisles of the grocery store is largely just the readiness to pick out tomatoes of a certain kind. That said, the important point is not so much to see the ways in which conception is unlike perception. Rather it is to notice that it is possible to hold that even when a property appears before one's consciousness in conception it is not substantial.

Finally, there is the question whether higher-level properties can be treated as universals. That is, is it possible for two instances of the same higher-level property to be identical? There is the simplicity of this quality, suppose, and the simplicity of that quality. Call them this simplicity and that simplicity (or, more simply, this and that). This color is identical with that, I suggested, only if they have all properties in common. The same principle applies to higher-level properties. This simplicity is identical with that only if all their properties coincide. Although some of the same difficulties arise in the intuitive application of this principle to higher-level properties as to first-level ones – how can this and that simplicity be identical if they are, say, co-exemplified with

different properties? – some difficulties drop off. Whatever the plausibility of attributing spatial and temporal location to first-level properties, there is much less for the same move for higher-level ones. This color seems to be on a surface and therefore to have spatial location. The same cannot be said for this simplicity.

The perhaps unsurprising conclusion of this section is that the *in re* realism conception of properties may include higher-level ones. There is no reason why the *in re* conception requires their postulation, though.

<u>Sparse Universals</u>

The controversy concerning sparse and abundant properties has a place in a larger debate. Each kind of ontology is the result of a choice of a principle for the postulation of properties – a postulation principle, as I'll call it. Some postulation principles are liberal, others, conservative. A principle is liberal if it allows the postulation of a property under a wide array of conditions. A principle is conservative if it allows the postulation of a property under only very regimented conditions. This is, evidently, an imprecise distinction, but it will serve my purposes.

An ontology which postulates sparse properties alone presupposes a conservative postulation principle. On it, there are only those properties which total science discovers to be causally efficacious. This is but one possible conservative postulation principle. One could also postulate only those properties which are given in experience. Perhaps there are very few of these. At least there are many fewer properties in such an ontology than there would be if abstract and theoretical properties were allowed in, as well.

An ontology with abundant properties presupposes a very liberal postulation principle. On one such principle, there is a property corresponding to every significant predicate. There are other possible liberal postulation principles. One could hold that there is a property corresponding to every significant predicate that occurs in a true sentence. On this view also properties are postulated under much less stringent conditions than those imagined in the previous paragraph.

Although realism does not entail any specific postulation principle, it is evidently incompatible with the most liberal one. I have suggested that the *in re* realist paradigmatically holds that properties exist only if exemplified. On the most liberal postulation principle, there is a property corresponding to every significant predicate. This principle is incompatible with the aspect of the theory just mentioned. The postulation principle ensures the existence of a property corresponding to every significant predicate. But if realism is true, there can be no assurance that there is a certain property short of its being exemplified. And since it is possible for there to be a significant predicate that does not pick out an exemplified property, this postulation principle is incompatible with realism.

This is some evidence that realism is more at home in the framework of a conservative postulation principle. Perhaps there is further evidence in the repeated appeals I have made to alleged phenomenological facts in spelling out the theory. I have suggested, for example, that part of the content of the notion of immanence is provided by the character of the perceptual experience of colors. If phenomenology is to have such an influence on the theory of properties then, it might seem, it should also limit the kinds of properties that may be postulated. Specifically, one might suggest that there are only those properties of which there is or can be experience. And since perhaps only a very limited number of properties do or can make up elements of experience, this would be a fairly conservative postulation principle.

Two remarks must be made about this suggestion. First, the theory of properties is concerned in the first instance with the most abstract question: what are properties? A postulation principle is a means to answer the subsidiary question: which properties are there? Phenomenological evidence has been appealed to, but at the first level, not the second. It provided part of the content of the claim that properties are *in re*.

As I understand phenomenology it concerns the character of any kind of experience – perceptual, conceptual and whatever else there might be. It is not clear that

some of the more exotic properties envisaged by liberal postulation principles are not objects of experience. Might not long disjunctive predicates correspond to properties that can be thought about? Could not the same be said for negation? Certainly, one can, for example, notice that something once had but now lacks a property.

Finally, *in re* realism as understood here has no special connection with the conservative principle championed by Armstrong. According to this principle, again, a property only exists if it makes a causal difference to the world. Since there is no special connection between the *in re* character of properties and their causal efficacy, the core of the theory is compatible with either the acceptance or denial of this principle.

What Kind of Exemplifiers?

Particulars may be analyzed as bundles of qualities. They may also be analyzed as qualities held together by an individual, something non-qualitative. Which of these views fits best with the *in re* theory of properties? There does not seem to be conclusive reason for preferring one or the other view on the basis of the theory of properties alone. Still, the details of the development of the theory will depend on which assay of particulars is chosen.

Bundle theorists hold that particulars are bundles of qualities. Properties on the view here developed are incomplete entities. They are completed by the things that have them. For the bundle theorist this must mean that a property is completed by other properties. This tomato has this color. That means that this color is bundled with this shape. This color, on the view, is incomplete. It is completed by the thing that has it. For it to be completed, then, is for it to be bundled with, among others, this shape.

For those who accept individuals – pincushion theorists – some completion at least does not work like this. Some properties are completed by individuals. That there is this possibility has an important consequence for how completion is to be understood. If completion can take place between a property and an individual then at least in some cases it is like an asymmetric relation. Although an individual has a property, a property

can never have an individual. It is misleading to think of completion as a relation, as it is misleading to think of exemplification as one. Yet, insofar as it is like one it is like an asymmetric one.

On the other hand, if the bundle theorist is right, the completion of a first-level property is akin to a symmetric relation. Because this color is completed by this shape, this shape is completed by this color. The bundle theorist may be forced to allow, nonetheless, that some cases of completion are asymmetric. If there are higher-level properties, for example, their relation to their lower-level exemplifiers is asymmetric. As I suggested above, however, it is not clear that the bundle theorist can consistently accept the existence of higher-level properties.

CHAPTER 2

TEMPORAL DISTANCE AND UNIVERSALS

<u>Must *In Re* Universals Precede?</u>

According to the theory I favor, properties are universals. When two apples have the same color, the colors are one and not two – the plural is undeserved. This is one peculiarity of the theory. The other is that on it universals cannot exist unless exemplified. This theory faces a problem. A house may retain its color over the years. When it does, the color it had before must be the same as the color it has later. But the two properties cannot be identical: one exists at one time, the other at another. One color preceded the other. So the colors cannot be one, since when one thing precedes another they must be different.

This is a problem about the persistence of qualities – qualitative persistence. There is an analogous problem about particulars. The guy who stole my wallet and the guy running away are the same man. Yet this seems impossible. The thief existed at a time before the runner. This seems to imply that the thief preceded the runner. But then, again, the thief and the runner cannot be one, since if one thing preceded another they must be different.

Some philosophers worried about the problem of particular persistence – as it may be called – have thought that the right answer to it depends on the correct theory of time. One controversy about the nature of time concerns the status of becoming. Some have maintained that temporal entities are peculiar insofar as some have yet to happen, some are happening, and some have already happened. For short, they have the characteristics of being future, present, and past. These are A-characteristics. Postulating A-characteristics is one way of accounting for the intuition that time, unlike space, involves transience. Time involves transience in the rough sense that temporal things are fleeting; they come into and go out of existence; they change.

The other characteristics which seem to be constitutive of time, those of precedence, simultaneity, succession and temporal location are B-characteristics.[35] Everyone admits that there are B-characteristics, and almost everyone thinks there are A-characteristics. The main controversy concerns the relations of these characteristics to each other. Some think A-characteristics can be identified with complexes of B-characteristics; others think A-characteristics cannot be so reduced. The former tend to speak of time as being like space, in that it is "spread out."

Take two non-simultaneous events, this sound and that sound. There are two problems about the persistence of properties. One problem concerns whether the qualities of successive things – that is, things with different B-characteristics – can be the same in the sense required by *in re* realism. Suppose this sound happened before that sound. Could the tone of this sound be the same as the tone of that sound?

The second problem concerns whether the qualities of things with different A-characteristics can ever be the same. Take a past event that is F, and a present F event. Could the F that characterized the past event be the F that characterizes the present one? It would seem not, since past things are no longer, and therefore cannot very well be identical with anything present.

My consideration of the first problem will take up the rest of this chapter and the next. I turn to the second problem in the final chapter.

The Precedence Argument and the Irreflexivity of Before

In Chapter 1 and in the opening paragraph of this, I explained the first objection to *in re* realism in a lamentably sketchy way. I will now try to rectify this situation by developing the "precedence" objection.

 (A1) Some x and some y are such that they are both F, and x preceded y.

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[35] I will speak of A(B)-"characteristics" and A(B)-"features" interchangeably. "Properties" I reserve for qualities other than A- or B-characteristics.

(A2) Necessarily, if x preceded y then x is not y.

(A3) Necessarily, if x is a constituent of y and y preceded z, then for every constituent w of z, x preceded w.

(A4) Necessarily, if x is F, then F is a constituent of x.

(A5) Therefore, x's F preceded y's F. [From (A1)-(A4)]

(A6) Therefore, x's F is not y's F. [From (A2) and (A5)]

I begin my examination of this argument by considering the principle (A2).

(A2) states that precedence is an irreflexive relation.[36] Since precedence is surely not reflexive, the only other alternative for one skeptical about (A2) is to hold that precedence is non-reflexive. I know of two attempts to work out this view, each of which appeals to the notion of the *occurrence* of a state of affairs or event.[37] The motivation for introducing occurrences is this: say it is possible for p to precede p. But if so, surely it is also possible for p, though not [*sic*!] p, to be simultaneous with q. Since this doesn't make sense, one may try saying that the first but not second *occurrence* of p is simultaneous with q.

Suppose, to take Addis's example (1974),[38] that a certain individual entity *a* is first red, then yellow, then red again, and assume the obvious abbreviations. "[W]hat we want to say," he thinks, "is that the first occurrence (!) of *rd(a)* was succeeded by an occurrence of *ye(a)* which in turn was succeeded by another occurrence of *rd(a)* but which, so to speak, completed the series" (*ibid*., p. 158). Chisholm similarly maintains that events may precede themselves (seemingly) because there are diverse occurrences of an event: "If an event p recurs, then we may be able to single out the *various* occurrences

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[36] A relation R is irreflexive iff necessarily ~(pRp), reflexive iff necessarily pRp, and non-reflexive iff possibly pRp and possibly ~(pRp).

[37] For Chisholm (1970, p. 20), events are a subset of states of affairs. This distinction makes no difference for the discussion.

[38] Addis's main interest lies elsewhere: the possibility that endurance is possible in a world without absolute times. It is also worth noting that Addis does not finally endorse the views that precedence is non-reflexive or that its relata are states of affairs.

of p and say things of some of them that we cannot say of others" (1970, p. 16; my emphasis).

The main question concerning each of these accounts is the relationship between an event p and p's occurring. Addis puts the problem in terms of a dilemma (*ibid*., pp. 164-5), which may be reformulated as follows. Suppose p occurs only once. Are p and its occurrence identical or not? If they are not, then occurring "is an additional entity which plays the role of individuating numerically distinct states of affairs with otherwise exactly the same constituents" (*ibid*., pp. 164-5). And if occurring is an element that may be added to states of affairs, then it makes sense to speak of its literally various occurrences. If, on the other hand, p and p's occurrence are one, then there cannot be facts about one occurrence which are not also facts about the "other."

Remember, the point of these accounts is to hold that precedence may not be irreflexive. In other words, the point is show that some things may precede themselves. In expounding the formal framework of such an ontology, Addis contends that *only* occurrences of states of affairs precede one another (*ibid*., p. 159). Addis's thought seems to be that occurrence is like a pure individuator. Like a bare particular which can individuate entities with otherwise the same constituents, occurrence may individuate states of affairs with otherwise identical elements. So if occurring is an individuator, then this occurrence of p may be diverse from that one. More specifically, the thought seems to be that if this occurrence of p preceded that one, then they must be diverse. But then, since this occurrence and that occurrence of p are diverse, the account is no longer one on which precedence is non-reflexive.[39] So if occurring is an element in addition to p, and precedence is to be non-reflexive, "each" occurrence of p must have the very same one.

The other alternative Addis considers is that occurring is not an element additional to p. But then it is possible for there to be "numerically distinct states of

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[39] This is not Addis's complaint against this alternative (*ibid*., p. 165).

affairs with literally all constituents in common" (*ibid*., p. 165). This Addis believes is problematic because it runs counter to Bergmann's (1967 p. 22) principle that, roughly, any "two" complexes with the same constituents are identical.

On this alternative the first occurrence of *rd(a)* is diverse from the second even though they have all the same constituents. But if the advocate of the view that precedence is non-reflexive is forced to concede this, we need go no further. He has just given up the possibility of that which he was maintaining. If when *rd(a)* precedes *rd(a)* the entities involved are two, this is not a case where precedence shows itself to be non-reflexive.

To work out the idea that precedence may not be irreflexive, then, one needs entities, events, say, to be the relata of precedence relations in such a way that a single event may precede itself. However, one also needs literally various occurrences of events so that sequences of events may be properly ordered.

Something's occurring, for Chisholm, is a primitive notion. Also primitive is the notion that "p occurs before q begins,"[40] abbreviated "pBq." "P" stands for such things as John's walking. Events also have negations. The negation of John's walking, i.e., not-John's walking, may therefore occur. An event precedes itself, intuitively, when it occurs, its negation occurs for a while, then it occurs again. This seems to require that an event might exist, cease, and come into existence again. But surely nothing can begin to exist more than once. To this objection, Chisholm responds that "[t]o say that there *is* a certain event p is not to say that p *occurs*" (1970, p. 23). I believe Chisholm would also assent to: for there to *be* a certain event p is not for p to occur. On this account, events exist necessarily though they may or may not occur. In answer to Addis' dilemma,

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[40] One of the oddities of this way of putting it is that an event may occur before it begins. It is perhaps slightly less counterintuitive to say that p occurs before p occurs. And, as far as I can tell, nothing is lost by so putting it.

Chisholm appears to take the second horn: p is not p's occurring. I believe this is a serious problem, to which I return momentarily.

Chisholm seems to think it independently plausible to hold that there are things that do not occur. But as far as the desiderata of a theory of events is concerned, the only reason to maintain that events may be without occurring is the worry about multiple beginnings.

Can Chisholm's account be defended? One might suggest that if this view about non-reflexive precedence were combined with a four-dimensionalist ontology of time, one might be in a position to parry the objection about multiple beginnings without distinguishing p from p's occurrence. Four-dimensionalists typically believe that something may exist even though it is not present. Therefore, an event may exist even though it is not now. Properly speaking, then, a recurring event would not occur after having ceased to exist.

The trouble with this move is that for the four-dimensionalist, temporal spread is just like spatial spread. Since spatial distance is surely irreflexive it is implausible to hold that precedence is not.

I now return to the character of occurrence. Suppose p occurs. It is natural to hold that what makes this true is the fact[41] that p occurs; or, equivalently, p's occurrence. P and p's occurrence, I have suggested, are supposed to be distinct entities for Chisolm. P can exist without its occuring; therefore, p can exist without its occurrence existing. Suppose p recurs. This means there is its occurrence, then the occurrence of its negation, then the occurrence again. But this violates Chisholm's principle that "if a thing ceases to be, then that same thing does not subsequently come into being" (*ibid*., p. 23). For, while its negation is occurring, the occurring has ceased. It, therefore, ceases to be.

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[41] Using this word as innocuously as possible.

Is the principle about ceasing plausible? I believe it is. Something ceases to exist, as Chisholm himself maintains elsewhere (1996, p. 75), just in case it is such that there are no properties it will have. And if something returns to existence, having once ceased, then once it was such that it would not have any properties, and yet later it did have properties.

The argument assumes that the occurrence of p is some kind of entity. Chisholm's comment (mentioned above) that talk about "particular occurrences" of events is to be reduced to talk about events might suggest the following response. There are no such entities as occurrences of events, though there are events. The objection therefore cannot get off the ground.

But this reply fails. Chisholm explicitly maintains that to "say" of an event that it is is not to say that it occurs. Now, according to this account, the contents of intentional states are states of affairs[42] (*ibid*., pp. 19-20). States of affairs p and q differ iff it is possible to accept p without accepting q (*ibid*., p. 19). Since saying that p differs from saying that p occurs, it must be possible to accept p without accepting that p occurs. Therefore, the state of affairs that p must differ from the state of affairs that p occurs. So the world must be somehow different depending on whether John merely walks, or his walking also occurs. So there must be some kind of entity that is the occurrence of John's walking.

Perhaps it will be replied that although occurrences are entities, the occurrence of p does not cease to be. And therefore it does not go into and out of existence in the process of recurring. But if p's occurrence does not cease, then it must *be* even while not-p is occurring. And therefore p occurs and not-p occurs, which Chisholm agrees is impossible. (The principle follows from his definition of "always occurs": "p always occurs =Df Not-p does not occur" (*ibid*., p. 17).)

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[42] Events are supposed to be a species of states of affairs.

Since these efforts to deny the irreflexivity of precedence fail, it may be inferred that precedence is irreflexive; that is, (A2) is true.

Precedence and Division

Next, let us see what may be said in support of

(A3) Necessarily, if x is a constituent of y and y precedes z, then for every constituent w of z, x precedes w,

from the argument at the beginning of Section II.

It is generally fallacious to infer from the fact that x has a property or relation R that every part of x has R. It is also generally fallacious to infer from the fact that x has a property of relation R that every constituent of x has R. *Qua* relation then it is possible for precedence to relate one thing to another without relating all of the first's parts. And *qua* relation it is possible for precedence to relate one thing to another without relating all of the first's constituents.

Strictly, (A3) is stronger than necessary to derive the conclusion. Suppose x is a qualitative constituent of y just in case x is a quality and x is a constituent of y. (A3) may then be replaced with

(A3') Necessarily, if x is a qualitative constituent of y and y precedes z, then for every qualitative constituent w of z, x precedes w.

And, rather than appealing to the principle known as the fallacy of division, one may argue that there is something in the nature peculiar to precedence that guarantees that the qualitative constituents of any whole that stand in it must also stand in it. The question then is whether precedence is a "homoeomeretic" property (see Armstrong 1978, pp. 68ff.).

Whether this more narrow principle holds depends on what sorts of entities may stand in the precedence relation. According to the view Addis (1974) considers, they are states of affairs: this leaf's being green, for example. More generally, on this conception, a state of affairs is something's exemplifying some property or relation. Chisholm (1970), as we also saw, calls these entities events. Among them is John's walking, or,

rather, the occurrence of John's walking. This is in essence the view I will shortly settle on. If it is right, (A3') is not. For, suppose only states of affairs enter into precedence relations. Qualities are in some sense constituents of such states of affairs. Unless qualities are states of affairs, it follows from the supposition just made that they may not enter into precedence relations. And qualities are evidently not states of affairs.

Even on apparently different conceptions of the relata of precedence there seems to be no support for (A3'). According to Quine, "'[b]efore' may be construed as a relative term predicable of times" (1960, p. 173). That x is before (some non-time) y may be construed in the following way: there are times w and z such that x is at w and y is at z and w is before z. Even if, *per impossibile*, Quine were convinced that qualities inhere in their bearers, there would be little reason for him to allow that the properties of times are also before and after things. The view only allows times to stand in before relations – fundamentally, at least.

Quine also believes that physical objects have temporal parts (*ibid*., p. 171). Suppose an apple lasts from t1 through t3. There must be the apple at t1, the one at t2 and so forth.[43] Necessarily, on this view, the apple at t1 is not the apple at t2. What is this t2 time? In the next chapter I will have much more to say about this question. According to many, a time is something that may exist autonomously, i.e., independently of all events.[44] Those skeptical about the existence of autonomous times prefer speaking of apple1, apple2, and apple3. One may then go ahead and identify the bearers of precedence relations with these entities, as does Grossmann (1983, p. 92).

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[43] See further on endurantism versus perdurantism (Quine's view) about persistence below, pp. 147-8.

[44] On this way of understanding it, trivially, a time cannot be autonomous if it is an event.

But to what ontological category do such entities belong?[45] More specifically, do they have qualities as constituents? For Grossmann, emphatically, no: "a particular <u>has</u> properties, but does not <u>consist</u> of them" (*ibid.*, p. 52). The momentary apple is one thing – each of its properties another. Although momentary apples precede things, contrary to (A3') (if x preceded y then all of its constituents preceded all those of y), none of their qualitative constituents do, if only because they have none.

According to Bergmann (1959, p. 232), only individuals may enter into precedence (or simultaneity) relations. What are these individuals? Individuals are the lowest-level exemplifiers of properties, what Bergmann elsewhere calls "bare particulars" (e.g., 1967, p. 24). These entities do not consist of properties. Therefore, the fact that individuals precede one another does not entail that any of their qualitative constituents, do. Again, this is trivially so since individuals do not have qualitative constituents.

For Jaegwon Kim (1993, p. 23), events are at least among the things have precedence relations. An event, on his view, is "a concrete object (or *n*-tuple of objects) exemplifying a property (or *n*-tuple of properties) at a time" (*ibid.*, p.8). Events are thus structured complexes constituted in part by properties. I do not know of any place where Kim discusses whether the constituent properties of events so construed must enter into precedence relations. But there is nothing in the logic of his view that would require, or even incline, him to so construe them. In fact, since times autonomously conceived are constituents of events, it seems most plausible for Kim to follow Quine in maintaining that events are before each other only derivatively – though in this case in virtue of having times as constituents, not being at them.

Chisholm's (1996) view is a close kin. The primary bearers of temporal relations, according to him, are states – such things as John's walking (1996, p. 59). Though he

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[45] According to Quine (ibid., p. 171), temporal parts are events, which are not further reducible ontologically. In this, Davidson (1980) follows Quine. I infer, therefore, that Davidson would also deny that events have constituent properties.

does not, one might well speak of the attribute of walking as a constituent of the state of John's walking. Does the fact that John's walking precedes something provide some reason to believe that walking, being its constituent, does? Again, I submit that there is nothing in the logic of the view to suggest so.

The main defense of (A3') would perhaps most likely come from those who claim not to be familiar with any such thing as constituency. According to them, if something is an element of something else, the one must stand to the other in something of the way a table leg stands to the table. So the only thing I could intelligibly mean in saying that properties are constituents of something must be that they stand to the something in the way that table legs stand to tables. And if so, and if table legs are construed as preceders, then properties must also.

This calls for reply on two fronts. First, constituency is of course primitive, so I can only refer the objector to what I have already said about it (pp. 19-23), not by way of explicating it, but by way of pointing it out. Second, although constituency is a relation in ill-repute in some quarters, there seems to be some reason for those who reject it not to align the element-whole relation too closely with the table leg/table relation. For Quine, for example, temporally extended physical objects are a kind of whole. They are made up of their various momentary events. But this relation of part to whole is surely far removed from what one finds in the case of tables. There is far better reason to suppose we are acquainted with constituency than with the relation that is supposed to obtain between momentary events and the collected physical object.

<div align="center">What Precedes</div>

The relata of precedence relations are states of affairs. A state of affairs is the exemplification of a property by something. The expression is meant broadly to include both changes in things (e.g., my getting hit) and more permanent exemplifications of

properties (e.g., this pen's being cylindrical).[46] States of affairs include the

exemplification of properties by other properties (e.g., red's being simple). A state of

affairs – I will sometimes speak of "states" for short – may be either necessary or

contingent, depending in part on the modal status of its constituents. And obviously,

contrary to some (Grossmann 1992), states of affairs are temporal.[47]

The view that states of affairs precede is suggested both by everyday language,

thinking and observation. We commonly *speak* of Paul's being sick before his being

healthy.[48] We commonly *think* about the water's heating up before its cooling off. And

we may *observe* that the leaf's being green preceded its being red.

Universals are not states of affairs; therefore, they do not precede. This may not

seem altogether counterintuitive. But substances – leaves, for example – also are not

states; they also, therefore, do not precede. This is much less intuitive. Some of the

counterintuiveness may be mitigated by noticing the very intimate connection between

substances (and universals) and those things which are temporal. Only states of affairs

precede – let us say, *primitively* precede. But since substances and universals are

constituents of entities which stand in such relations, they may be said to stand in such

relations themselves, albeit *derivatively*. The analogy is with the phenomenon that some

things have value fundamentally or intrinsically (pleasure, say) while others have it

derivatively or instrumentally (going to the park, say). More will be said on this below

(pp. 73-76)

I believe proper analysis shows that such entities as earthquakes, baseball games,

and killings may be understood on the state of affairs model just proposed. My team's

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[46] See Kim (1993, p. 33) for a similarly liberal conception of what he calls events.

[47] It being useful in some contexts to think of events and states of affairs as diverse, it seems to me plausible that events may be defined as a sub-set of states of affairs. A first thought is that events are those states of affairs with substances as constituents.

[48] Addis, though he also notes it, "place[s] little significance" in this fact (1974, p. 163).

last baseball game was just so and so's running to first, so and so's pitching the ball and so forth. The problems faced here are problems of detail. I will therefore treat events and states of affairs interchangeably.

Other candidate relata of precedence relations are more difficult to fit within this schema. I shall consider five classes of such non-state of affairs preceders: (1) sounds, (2) tastes, (3) odors, (4) mental states, and (5) times. Each of these, though apparently a kind of preceder, does not seem to be a state of affairs. I will (very briefly) contend that the members of (1), (2) and (3) all belong among (4), which are in fact states of affairs. I reserve treatment of (5) for Chapter 3, where it will be argued that there are no autonomously conceived times.

The same argument which may be made for the preceding character of sounds may be made, *mutatis mutandis*, for tastes, odors and mental states. It may happen that, in a certain symphony, this certain sound preceded that one. By "this certain sound" I do not mean a kind of sound, but a particular one. This sound, it seems, is not a state of affairs. There seems to be no something exemplifying a property involved. Therefore, if it is possible for this sound to precede then it is possible for something other than a state to precede.

I agree that sounds *et al* precede; but since they are in truth states of the mind, they are not counterexamples to the thesis.[49] Take perhaps the easiest case – tastes. The sweet taste I got from the last bite of my apple must be mental because it can be nothing about the apple, and there seem to be no other likely candidates for it to belong to. And experiences appear to be complexes involving an experiencer and some property he exemplifies.

These observations should be taken as *dicta*. I would be surprised if someone found these arguments sufficient to establish my point about sounds and tastes. My main

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[49] Thanks to Fumerton for helping me see this point.

aim here is to show how an account of the relation of *in re* universals to time may be placed within the broader context of a theory about what is properly temporal.

<div align="center">Rival Theories of What Precedes</div>

How does this theory match up against its rivals, some of which were mentioned in Section II? I've had my say on Chisholm (1970) in that same place. So far as the general nature of the bearers of temporal relations is concerned there is no significant difference between his (1996) and this view,[50] though I will take issue with some of the details of his view later.

It is possible to develop Kim's view as an account of the bearers of precedence relations. Kim's view, like this one, takes events, as he calls them, to be ontologically complex. On his, all events involve a constitutive object, a constitutive property and a constitutive time (1993, p. 35). There are two important differences between Kimian events and our states: his events are such that the entity exemplifying the property must be a substance and they must involve times as constituents. I shall not take issue with the former requirement. The second presents a more serious problem.

Kim's account of times as constituents of events entails that times are substantial and autonomous entities. The alternative to the substantival view is to hold that times may be identified in terms of collections of events. But it is not possible to reduce times to collections of events if those events are themselves constituted by times. Such an account would obviously be circular.

The main initial reason for postulating a category of being is that one finds examples of it in the world. Times, I daresay, do not meet this initial condition even for those who believe they exist.[51] Failing this, one may believe in times for, broadly speaking, dialectical reasons. If there are facts for which no account can be given

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[50] Compare also Geach (1965, pp. 330-35).

[51] But see Smith and Oaklander (1995, pp. 37-8).

without appealing to such entities, then, *ceteris paribus*, we should believe in them. Neither is this condition met: one can do away with times, as I will show in the next chapter, in favor of relationships between states of affairs.

But I do not rest my main case against Kim's account on this. Times, simply put, cannot be constituents of events commonsensically conceived. Take Paul's tripping. Consider it from all angles. One finds Paul surely. And tripping. But where is the time that is supposed to be the other constituent?[52]

The last is a broadly phenomenological objection. The next is ontological. If Paul's tripping is partly constituted by some time t1, it follows that Paul's tripping could not take place at any time other than t1. But Paul might have tripped a little earlier or later.

A Kim enthusiast might admit that a tripping by Paul at t2 wouldn't be identical with the one in question, yet insist that they are "the same." As with perduring objects which are the "same" through time though diverse, one might insist that in order for the possible t2 tripping to be the "same" as the t1 one it is enough that Paul and the tripping be involved in both.

Yet this concession just shows that what matters in determining whether this and that state of affairs are the same is whether the constituents *other than the time* are identical. Shouldn't one infer from this that what matters in Paul's tripping are Paul and the tripping – not some supposed time constituent?

Let me be as clear as I can. I don't object to Kim's view because an event of the same *sort* might have happened a little earlier or later; but that *that very* event might have done so. Is there something unintelligible in this? Well, no: one can easily *wish* that my sister's wedding, in all its particular glory, have happened a little earlier or later. One

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[52] For more on our cognitive access to times, see below (pp. 111-113).

would not be conceptually confused if one so tried to wish. And indeed her wedding might have. Kim's view cannot accommodate this common feature of events.

Although inadequate, Kim's view stays fairly close to the phenomena as I find them. The next view does not. This is the view of Quine's according to which the primitive bearers of precedence relations are times. On the view, for this sunrise to have preceded that sunset is for this sunrise to be at t1 and that one at t2 and for t1 to have preceded t2. Primitively, precedence only relates times, though derivatively, the thought goes, it relates other things. Notice that the advocate of this view also cannot hold that times are to be relationally understood. Take a crude version of the relational view: for an event N to be at t is for N to be simultaneous with a certain collection of other events – intuitively, though not informatively, the ones at t. But once times are reduced to collections of simultaneous events it follows straightforwardly that these events must be capable of standing in primitive simultaneity relations. This being so, what could be the motivation for holding that although events may be primitively simultaneous, they may not primitively precede each other?

As I have argued, entities such as this sunrise need not have been at the times when they actually occur. And if this sunrise might have *been* even if not at t1, it might have been before that sunset even if it had not been at t1. And therefore this sunrise's being before that sunset does not require this sunrise's being at t1.

The account might be amended so that for this sunrise to be before that sunset is for there to be times t and t' such that the sunrise is at t, the sunset at t', and t preceded t'. Since the account does not require that there is a certain time such that the sunrise is at it, it allows that the sunrise could have been at some other time.

Since it is a version of substantivalism, this account entails that times are necessary entities, and it seems plausible to infer, that whatever precedence relations they have, they have necessarily. Therefore, assuming this sunrise and that sunset both obtain,

it is a necessary fact that that sunset followed this sunrise. But precedence relations are not necessary.

Finally, it is possible to hold that both events and times stand in non-derivative precedence relations. In this case, my main objection is systematic. If events stand in precedence, and presumably simultaneity, relations primitively, what ontological work are these irreducible times doing? It could be argued that they are needed to understand such facts as that it is raining at this time. I will have more to say on that phenomenon in the chapter, but even if plausible the phenomenon does not indicate a need for times as primitive bearers of precedence relations.

I have discussed the view that persisting physical objects, for example, are collections of momentary entities. Another view on the relata of precedence relations is that it is these momentary entities which stand in precedence relations. There are three varieties of this view, depending on their assay of momentary objects: (I) the bare particular view, (II) the concrete particular view, and (III) the concrete event view.

(III) is the view Quine might well have held had he not believed in times, and it is perhaps Davidson's view. This kind of event, Quine says, is the partial "content . . . of some portion of space-time" (1960, p. 171). Most charitably, the view may be taken to count concrete events among the primitive ontological categories.

The main reason to be skeptical of this view is that there is very little to be said in support of the contention that this book at the moment is an event. It does not *appear* that it is a happening or occurrence of any sort. Not that it is not undergoing any change – perhaps it is, unknown to me. But even if it were, it clearly is not *itself* a change. The defender of the view would surely reply that the place to look for support is not my experience, but in the findings of physics. But surely physicists are as poorly trained to do ontology as ontologists are to do physics. This for a reason: it is not the aim of physicists to uncover the – *tout court* – necessary structure of reality.

(II) is at least suggested by some of Bergmann's (1959, pp. 230-2) writings. The only things that precede each other are individuals. Among individuals are such things as this apple (right now). This apple may be taken to be a constitutively complex entity – thus, a concrete particular. Otherwise, as in (III), the individual that precedes may be construed as brutely particular – thus, a bare particular.

That aside, the defender of (II) concedes that preceders are ontologically complex. They require some assay, in other words. I will consider two such. The bundle theory makes of the momentary apple a collection of bundled properties. The state of affairs view alleges that the momentary apple is its properties' being exemplified by something non-qualitative. If the bundle theory is true the momentary apple cannot be a mere class or set of properties. For, the class of the apple's properties could exist even though the apple doesn't. All the properties might qualify other fruits, for example. The properties must therefore be united by some bundling relation. It must therefore be those properties' being bundled together that constitutes the ontological essence of the momentary apple. But some properties' being bundled together is what I've called a state of affairs. In either case, then, it would appear the momentary apple is a state of affairs: either these properties' *being bundled* together, or these properties' *being exemplified* by this individual. On this construal, (II) does not essentially differ from my own view.[53]

Now, I don't really believe that apples stand in precedence relations. A full discussion of this must wait, though. I may say now that it is difficult to fathom bare particulars entering into precedence relations – as on (III) – for largely the reasons it is difficult to fathom this apple doing the same. Bare particulars don't *do* that kind of thing. How can something be before something else if it does not happen or occur? That bare

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[53] It may of course differ in detail. I don't believe, for example, that when an apple persists it is constituted by momentary apples. Something that existed for but a moment would not properly speaking be an apple. Also, even if there are instantaneous and apple-like things (as is possible) they could not be constituted by properties alone, nor could they be plausibly taken to be states of affairs.

particulars are in this regard like concrete particulars is no accident. They are after all supposed to ground the particularity of such entities.

<p style="text-align: center;">Armstrong on the Temporality of Universals</p>

I have considered a temporal objection to *in re* realism. I have resisted it by denying that universals precede. Next I consider a different kind of challenge. Are there perhaps systematic reasons to suppose that *in re* realism is best combined with a temporal conception of universals? Armstrong, among the foremost living metaphysicians, thinks so. He agrees with our view that, first, when two entities have the same color the colors are literally identical (1978, pp. 111-13); and, second, that "[w]e can think of a thing's properties as constituents of the thing" (1989, p. 78). He also accepts states of affairs in the very sense here adopted (1978, pp. 114-5). However, he believes this view is best developed by bringing universals "down to earth, down to space-time" (1989, p. 98).

In what sense are universals supposed to be in space-time? (I will of course concentrate on the issue of temporality.) The most obvious way of taking this suggestion is to hold that universals have temporal location and, therefore, that they enter into precedence relations. The first question concerning this view is to decide when universals are located. One alternative Armstrong pursues is to claim that green is multiply located – specifically, located whenever a green thing is located (1988 110ff.; 1980, p. 72).

This move is much more plausible in the case of temporal location than spatial. Although it does seem that nothing whatsoever is located at two places at once, the analogous claim about temporal existence, (B3) – that nothing whatsoever is located at two times – seems to have little to do with time as we find it. It does appear to be possible for something to have multiple temporal location.[54]

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[54] See Wolterstorff on multiple spatial and temporal location (1970, pp. 223-34).

But suppose the property F is located at both T1 and T2. Whatever has temporal location, it seems plausible to suppose, must be capable of standing in precedence relations. Therefore, F must be capable of preceding things. Now, the fact that F is at both T1 and T2 does not entail that F precedes itself. To see why, suppose there is an irreflexive, asymmetrical and transitive relation of wholly preceding. Further, there is the non-transitive relation of overlapping in which x and y stand just in case neither wholly precedes the other. These notions now in hand we can see that all the fact above noticed entails is that there are states S1 and S2 such that F overlaps S1 and S2, and S1 wholly precedes S2.[55]

Still, some entities that are green wholly must precede other such entities. If so, it seems to follow that green wholly precedes itself. But since complete precedence is irreflexive, this cannot be. Therefore, the first suggestion for how to understand the idea of bringing universals down to space-time fails.

But elsewhere Armstrong seems to have something different in mind in saying that universals are temporal. Perhaps universals are in time not in the sense of having temporal location, but in some other way. Consider for example:

> To talk of locating universals in space-time [is] a crude way of speaking. Space-time is not a box into which universals are put. Universals are constituents of states of affairs. Space-time is a conjunction of states of affairs. In that sense universals are "in" space-time. But they are in it as helping to constitute it. (1989, p. 99)

Take two states of affairs: a's being F, and b's being G. These states may be joined to form the conjunctive state of affairs a's being F *and* b's being G. Space-time, on this suggeston, is supposed to be composed of the conjunctive state of affairs made up of all these other states.

As will emerge, if this is all being in time amounts to, there is no point of disagreement between Armstrong and me. I agree that universals are constituents of

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[55] See Russell's "On Order in Time" (1956).

states of affairs. I agree that states of affairs are temporal.[56] Therefore, I agree that in this sense, universals are "in" time. But notice what one is "forced" to deny. Universals are not temporally located. And universals do not stand in temporal relations. I happily concede both claims. But this is not clearly compatible with the naturalist thesis Armstrong wants to hold, namely, that the world of space-time is all that exists (1988).

One final strand in Armstrong's thinking about the connection between universals and time emerges in his deliberations about the essence of particularity. According to Armstrong, first-level properties are exemplified by "thin particulars" (1978, p. 114). A thin particular is a "thing taken in abstraction from all its properties" (*ibid*., p. 114). (A "thick" particular is "a thing taken along with all its properties" (*ibid*.).) What constitutes the particularity of the thin particular? "[T]he particularity of particulars," he suggests, may be identified with "their spatio-temporal position" (*ibid*., p. 118).[57]

Armstrong seems to be concerned with the persisting particular, but matters may be simplified by considering momentary particulars alone. In a state of affairs there is the thin particular and its properties in some sort of unity. The question is what constitutes the particularity of the thin particular at a moment. One should not interpret this question, it would seem, so that the thin particular is one thing, while its particularity is another. The aim, instead, is to discover that with which the thin particular aspect of states of affairs should be *identified*. And the suggestion is that it should be identified with spatio-temporal position.

Suppose the thin particular p is F. The suggestion is that p is to be identified with a spatio-temporal position. With respect to many properties, however, this seems literally

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[56] One must distinguish the manifold of time from the structure of time. The latter is, in my view, made up of the relations which make time what it is. The former are the entities which stand in those relations. When Armstrong says (space)time is a conjunctive state of affairs he means the manifold of (space)time.

[57] This view undergoes modifications in the discussion, but these make no difference for my criticisms. Armstrong later gave up the view altogether (1997, p. 110).

unintelligible. The connection between p and F, on Armstrong's view, is exemplification. If p *is* a certain spatio-temporal position, it follows that the spatio-temporal position exemplifies F. For certain Fs (mass, for example) this seems extremely implausible.

This way of putting the view suggests that thin particularity is to be identified with spatial-temporal positions substantially construed. The fact that Armstrong believes that spatio-temporal positions differ brutely (*ibid*., p. 93) suggests this is his considered view. But elsewhere Armstrong asserts that "*being at p_1t_1 constitutes the particularity of a*" (*ibid*., p. 118). A certain spatio-temporal position is different from being at that spatio-temporal position. Therefore, identifying bare particularity with the latter is different from identifying it with the former. But this suggestion also yields nonsense.

Say p is identical with being at p_1t_1. Since p exemplifies F, it follows that being at p_1t_1 exemplifies F. But green could not be exemplified by being at p_1t_1. Perhaps, however, the thought is not that F is exemplified by being at p_1t_1, but that F *is at* p_1t_1. This, it seems to me, is the view one finds in Armstrong's (1988) and (1989), which I have already considered. It has the additional failing, in this context, that it appears not to address the main question. F, on this alternative, is not exemplified by p_1t_1. But it is exemplified, surely. What exemplifies it? If it is not p_1t_1, the whole exercise is futile. For the point was to discover that with which the thin particularity of particulars is to be identified.[58]

But there are places where Armstrong seems to suggest that the thin particular and its particularity are not one but two. Consider the following principle he accepts: "(1) For all particulars x and y, and total positions, P and Q; if x has P and y has Q and P ≠ Q, then x ≠ y" (1978, p. 122). We know that particulars may be thick or thin. Which kind of

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[58] It could be argued that thin particulars have two aspects corresponding to their roles as exemplifiers and as individuators. But one would only as a very last resort say that that which individuates is not literally identical with that which exemplifies.

particulars are the quantifiers supposed to range over? Now, at the beginning of this discussion, Armstrong announces that he is concerned with "the nature of particularity (in the "thin" sense)" (ibid., p. 118). In the course of the argument that follows, however, he has various occasions to refer to particulars in the thick sense (as a "coloured cube," for example (*ibid*., p. 120)).

If "particulars" in (1) picks out thin particulars, then the latter are not identified with spatio-temporal positions either in the sense that they are those positions or in the sense that they are the property of being at those positions. Instead, thin particulars exemplify those positions. It follows straightforwardly that the thin particular cannot be those positions (since thin characters are definitionally incapable of being exemplified).

If the "particulars" in (1) are thick, there seems no reason to infer anything about the spatio-temporal character of properties from the principle. Properties are constituents of thick particulars which, evidently, have spatio-temporal position. But as I have repeatedly urged, and as perhaps Armstrong came to believe, it does not follow that the properties also do.

There are four views Armstrong may plausibly be construed as having advocated at different times: (1) properties literally exemplify temporal locations; (2) properties are exemplified by temporal locations; (3) properties are exemplified by the property of being at a temporal location; (4) properties are only derivatively in time. (1) I reject because it involves denying the irreflexivity of precedence. (2) and (3) I believe involve categorical confusions. (4) is in fact the truth, though it is not clearly compatible with Armstrong's naturalism.

<u>The Case for the B-Temporality of Universals</u>

Since only states of affairs stand in precedence relations it follows that nothing else does. Specifically, it follows that universals do not. Obliquely, this last view has been defended in connection with my reply to the precedence objection. I now turn to a more direct defense.

The view is suggested by critically informed common sense. Consider:

(P) Red precedes (is simultaneous with) x

and

(S) Red is simultaneous with x.

There is a single ontological fact which makes both impossible. Being simultaneous with something may be identified with facts involving precedence and no other temporal relations. Therefore, the fact that properties may not precede entails that properties do not stand in simultaneity relations.

If time were exhausted by precedence relations we could conclude from these considerations alone that universals are atemporal *tout court*. But it is not – at least not obviously. First, there is the question whether universals are at times. It is not obvious that being on Tuesday may be reduced to facts about precedence alone. And setting aside Broad's extensive aspect of time altogether, there is yet the question of how universals connect with transitory time. This is the kind of temporality involved in the possession of A-properties of presentness, pastness and futurity. Perhaps, although properties are atemporal insofar as they don't precede anything, they enter into the transitory aspect of time. To mark this distinction I will speak of that which lacks B-temporal properties (precedence, simultaneity, temporal location) as B-atemporal. Thus at the conclusion of the next chapter I will have shown that properties are B-atemporal.

(P) is necessarily false. Since not everyone agrees, it would be advantageous if some argument could be offered for this thesis. Now, I believe the negation of (P) is evidentially on a par with the claim that

(N) red is not a shape.

If asked to defend the latter claim I would be initially flummoxed. Having composed myself I would, I suppose, ask the objector to consider the two properties and ask whether he could somehow put them together by way of exemplification. Insofar as a positive defense is required, I can do no more in the case of (P). Since (P) is on a par

with (N), and no more can be reasonably expect of defending the latter, there's no problem.

The best one can do in defending (P), apart from this, is to show (i) that it can answer all objections and (ii) that it is compatible with *in re* realism. The first objection to (P) concedes that some properties do not precede. It contends that others do. With respect to the latter properties, since precedence is irreflexive, it follows that *in re* realism cannot be the right account of them. If F precedes F it follows that F is not F. Since *in re* realism requires that properties are shared only if they are identical, it follows that properties which precede cannot be shared.

Red is a determinable which may manifest itself in different determinates. In its by far most common (perhaps universal) use, the extension of the predicate "is red" is not an absolutely determinate shade of color, but rather something which includes a range of somewhat closely resembling such shades. The same of course applies to the abstract singular term "red" as it appears in (P). Now, the objector concedes that determinable properties cannot bear temporal relations. Whatever plausibility the denial of (P) has it owes to its referring to determinables. Absolutely determinate properties, on the other hand, do precede.

It is no mean feat replacing (P) with a sentence that calls attention to absolutely determinate features alone. But even though all predicates should turn out to be generic, there are sentences that can call attention to absolutely determinate properties without the use of the predicate that might plausibly include the property in its extension. I have in mind

 (P') This precedes X,

where the demonstrative is used to denote a certain determinate quality. The intelligibility of (P') does presuppose the capacity to demonstrate qualities in experience. But the evidence of such a capacity is overwhelming in any case (see Grossmann 1983, pp. 44-48).

The point of the response is to argue then that when (P) is replaced with (P'), which is used to refer to the temporal character of an absolutely determinate property, its awkwardness disappears. Although it has the danger of undermining the exact distinction just insisted upon, in order that I may be understood I will need to continue to speak of absolutely determinate properties with generic expressions. So the claim is that this (the color of the paper) may precede some X. But no support has been offered for the central contention of the objection, namely, that absolutely determinate qualities do precede.

Here is another defense of (P). Evidently, it is possible to see that the piece of paper on the desk is white. Now in the penultimate paragraph I insisted that it is possible, in fact common, to demonstrate a quality. If it is possible to demonstrate x, then it must be possible to perceive x. It is therefore possible to perceive qualities. And there is independent reason to think the same. I find myself even now seeing the color on the surface of the book on the desk. But if a quality can be perceived, then it must be in time, for how can the atemporal be perceived?[59] And if something is in time it must stand in temporal relations.

There are two crucial premises in the argument: (I) properties can be perceived and (II) everything perceived exists in time. (Grossmann calls (II) the "dogma of localization" (1983, p. 42).) Together with the claim that something can exist in time only if it stands in precedence relations, the argument does entail the possibility of (P).

I believe (I) is true. The problem with the argument therefore is (II). What reason is there to believe it? One line of reasoning begins with the view that perception is a causal connection between entities. If x caused y, x must precede it. Anything which stands in precedence relations exists in time. Therefore, everything perceived exists in time.

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[59] Thus Russell (1912, p. 98): "everything that can be apprehended by the senses or by introspection exists at some particular time." As suggested by Russell's observation, the argument may be extended to include objects of introspection.

This argument is compatible with our claim that only states of affairs precede. This is because the relata of causation are surely states of affairs. But, for the same reason, it is incompatible with (I). Properties cannot very well be perceived if perception is a causal relation, and its terms are states of affairs.[60]

But, in any case, even setting aside properties, not all objects of perception seem to be states of affairs. Cats and chairs may be perceived, and they are not states of affairs. Is there then some reason to suppose that the general character of perception requires that what is given in it be temporal?

Perhaps there is the following line of reasoning: (1) If x is perceived, then x must be capable of change. (2) If x is capable of change, x is temporal. (3) If x is temporal, x must be capable of preceding. Therefore, (4) if x is perceived x must be capable of preceding.

I believe (2) is false. Some things that are capable of change are not B-temporal. I can perceive this cat. This cat may change. Yet, this cat is not a state of affairs. Therefore, this cat does not precede. And therefore this cat is not B-temporal. (This surprising result will be given fuller consideration in the next section.)

And although surely the world of perception is in some sense the world in which change occurs there is no guarantee that everything perceived is capable of undergoing change. For those who believe that the world as given in experience is ontologically complex may well concede that change is given paradigmatically in experience, yet deny that all the elements of what is experienced are alterable.

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[60] Somehow, Grossmann appears to hold both that properties may be perceived and that only states of affairs are perceived. The objects of perception "are states of affairs rather than things" (1983, p. 46); yet: "[o]ne perceives states of affairs. But one also perceives their constituents" (*ibid.*, p. 47). Properties of course are among the latter.

I have now replied to several objections to the view that properties are B-atemporal. Before responding to more, it will prove useful to develop in another direction the implications of the view that only states of affairs precede.

<div align="center">Physical Objects and Precedence</div>

Only states of affairs precede. Since ordinary physical objects are not states of affairs (see below), it follows that ordinary physical objects do not precede. And again, since simultaneity and temporal location may be defined in terms of precedence, it follows that physical objects are neither simultaneous nor temporally located. Physical objects therefore are B-atemporal.

This much is a datum: the sentence

 (C) This apple preceded Z

(where "Z" is a denoting expression) with its ordinary meaning does not assert a truth. The same may be said of the judgment that corresponds to this sentence. This *suggests* that the facts (C) purports to describe cannot be described; in other words, that there is no such fact.

It would be foolhardy to infer conclusions about matters ontological from superficial semantic observations. And asserting that ordinary physical objects do not stand in temporal relations is a momentous claim as far as these things go. Can it be supported by anything other than the linguistic evidence just adduced? When linguistic evidence is not superficial it displays something significant about our thought about the way things are. This is one of those cases. Think of this apple. Can you *judge* that it is on Tuesday? Or that it succeeded Reagan's first speech? Can you *believe* either? I find that I can't.

This thesis would be undermined if this apple turned out to be a state of affairs. What, then, are we to say about the ontological character of physical objects? I will not argue for any particular account. I will merely note what we are constrained to say given our previous commitments and our present thesis. Note, however, that those who

inclined to argue that physical objects do precede because they are states of affairs do not question the central claim here that only states of affairs precede.

It has been maintained by Bergmann that ordinary objects such as apples "are not things but facts" (1967, p. 10). "Thing" is here used technically to refer to something that is not complex, such as a characteristic. Bare particulars are also, according to this way of thinking, things. A fact (at least the kind an apple would be) is something's exemplifying some property.

If he is right about the nature of apples, then one would expect apples to precede things. In order to deny (C) one must reject Bergmann's contention that ordinary objects – among which apples are included – are facts.

We must also reject Broad's suggestion that physical objects are collections of events (1923, p. 393). On his view, the events that make up a physical object are what are called in the tradition sense data. The fact that they are closely aligned with the mental makes no difference for my purposes.

<u>Primitive and Derivative Temporality, Part I</u>

I now turn to objections to the view that physical objects are not temporal. These are applicable to both physical objects and properties. First, grant that red does not precede anything. And that neither does this apple. Yet, the argument goes, the apple may have *existed* before something. Further, the apple has an age, it has a history, it has begun, and will cease, to exist. And, perhaps, red may have existed before something. If x exists before something then it follows that x is temporal. The same argument may be made for temporal location and simultaneity.[61]

I do of course agree that apples have all these features, but I believe that these are compatible with their B-atemporality. The general strategy is to analyze these features in

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[61] For a fuller discussion of the differences between the temporality of processes and things see Broad (1933, pp. 146-48).

terms which show that they all involve entities as constituents of states which stand fundamentally in temporal relations. The concept of age, for example, may be defined in terms of a beginning of existence. The apple is n years old just in case the state of affairs in which the apple first obtained occurred n years ago. The history of an apple is the collection of changes it has undergone. These changes are events (states of affairs): the apple's being green, then red, then falling off the branch, and so on. These states of affairs are of course literally temporal, so apples may have histories even though they aren't temporal. This apple existed at t just in case this apple had some property at t. As we have seen, to have a property at t is not to be at t.

The matter is even more complicated when it comes to properties. It is not clear that properties begin to exist or exist at times. If one is inclined to say that they do I shall shortly show how sense can be made of such talk.

What is needed here is the distinction I made earlier between primary and derivative temporality. In discussions of the nature of truth it is commonplace to distinguish between primary and derivative bearers of truth value. Lots of kinds of entities can be true or false, including sentences, opinions, beliefs, thoughts, judgments and much else. Some of these things are only derivatively true. On one view, for example, sentences are only true in virtue of their connection to something else that is true in its own right, namely, thoughts. Thoughts, on this account, are the primary bearers of truth-value.

Similarly in the world of temporal phenomena, some entities are primary bearers of temporal relations, while others are so only derivatively. If it can be shown that things like pens and colors are temporal in some sense, the blow of my initial denials may be softened to a certain extent. This color does not primarily stand in temporal relations. But it does derivatively. This color is a constituent of the state of affairs which is this pen's being this color. This pen's being this color, I have argued, is among the paradigmatic bearers of precedence relations. In virtue of being a constituent of

something that bears such relations, it can be argued, this color itself *derivatively* bears such relations. This pen, analogously, *derivatively* bears precedence relations in virtue of being a constituent of states of affairs that *primarily* stand in such relations.

I propose this distinction with some hesitation. There is a world of difference between preceding something derivatively and primarily. So much as to suggest that it is simply captious to assert that pens and colors do it at all. But there is also a world of difference between being true derivatively and being true primarily; as there is between being good intrinsically (primarily) and being good instrumentally (derivatively). If the radically different senses in which things bear temporal relations derivatively and primarily are kept in mind, however, no danger will come of making the distinction.

The point is that some qualities are in time, in a sense. They are derivatively temporal in the sense that they are constituents of temporal things. This, I believe, captures the intuitive force of the objection without giving up the main thesis. Both physical objects and properties are derivatively temporal. To this extent their connection with time is analogous, but in certain ways it is not. For a physical object to exist now is for it to have some property now. For a property to exist now is for it to be exemplified now.

Although physical objects may begin and cease to exist, qualities may not be said to do the same except in a very extended sense. It is logically possible for a property P to be exemplified for the first time, then not, and then exemplified again, for the last time. One might be inclined to speak, therefore, of the first exemplification of P as the "beginning of the existence" of P. One might then also speak of P as "ceasing to exist" when it is last exemplified.

Physical objects may also be said to begin and cease to exist. But the beginning and ceasing of a physical object is quite different from that of a property. Once it has begun to exist, a physical object must exist continuously until it ceases. It cannot "skip

over" times. A property, on the other hand, can. It is dangerous therefore to speak of a

property as beginning and ceasing to exist in the same sense as a physical object.

But it is not clear that all properties are even derivatively temporal. It is not clear,

for example, whether precedence is a constituent of states which bear temporal relations.

Certain spatial relations, however, are more clearly derivatively temporal. Take

the fact that Paul was to the left of Suzy before Patty was to the right of Sam.

Since Paul's being to the left of Suzy occurred commonsensically before the other state

of affairs, and to the left is a constituent of it, to the left is derivatively before something.

And since Paul's being to the left of Suzy is at a time, to the left, being a constituent of it,

is *derivatively* at a time.

Toward the end of the first Chapter (pp. 34-41), I discussed the status of second-

order properties in an *in re* ontology. I suggested that the *in re* realist can consistently

accept the existence of such properties. Now do these properties enter into derivative

temporal relations? Take red's being simple. Suppose being simple is a property of red.

Red's being simple is a state of affairs. But it is noteworthily different from what I have

hitherto taken to be the paradigmatic states of affairs. The paradigmatic states of affairs

are things such as this pen's being cylindrical. Each one involves a substance's having

properties. But red is not a substance. Does red's being simple, even though not a

typical state of affairs, stand in temporal relations? Although perhaps initially

counterintuitive, the system advocated here in no way precludes its doing so.

<div align="center">The Case against the B-Temporality of Universals</div>

I have argued that properties don't bear temporal relations on the basis of the

awkwardness (perhaps unintelligibility) of asserting that they do. Are there other

arguments for the same conclusion? That is, are there *a priori* arguments for the

conclusion that properties don't stand in temporal relations? In this section I want to

consider some arguments for the view, and some arguments against the view.

First, one might suggest that since properties are necessary they cannot stand in temporal relations. I will not bother to develop the argument, since on *in re* realism properties are plainly contingent.[62]

Next, one might suggest that properties aren't in time since, if something is in time it must be capable of change, and properties aren't capable of change. This argument requires more careful consideration. There are two views of change, coinciding with the two views of persistence distinguished before. Neutrally put, x changes from t to t' iff there is a property x has (lacks) at t' that it lacked (had) at t. On the perdurance view, x changes from t to t' iff x at t and x at t' are numerically and qualitatively diverse yet enter into the appropriate causal and resemblance relations. On the endurantist view, x changes from t to t' iff x at t is numerically identical with x at t' yet has (lacks) a property at t' it lacked (had) at t.

I don't believe that everything capable of change is thereby temporal. Physical objects, although not temporal, change. This apple may be red even though it was green. Nor are properties incapable of change. Whether a property enters into a certain relation with another property, for example, depends on whether the properties exist. Properties exist only if exemplified. Further, a property may be exemplified intermittently. Therefore, pink may resemble purple sometimes but not other times. Whether pink resembles purple depends on whether pink exists. Pink resembles purple even if purple is not presently exemplified, and therefore does not presently exist, so long as it did exist. This parallels nicely the fact that Clinton resembles his grandfather even though his grandfather does not exist, in case he did exist. So if pink was exemplified, but is not, and purple is, pink does not resemble purple, even though purple resembles pink. Again this parallels the fact that Clinton's grandfather does not resemble Clinton, even though Clinton resembles his grandfather.

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[62] Ignoring properties (supposed) necessary entities might have.

The following may be a better argument for the view that no properties are temporal. To be primarily temporal is to be such as to bear temporal relations. If something is primarily temporal then it must be capable of bearing precedence relations. To be a property is to be capable of being had by more than one thing. These things, moreover, must be capable of existing at different times. If a property P1 is at the time its exemplifier is at, then P1 precedes everything its exemplifier does. Now, since in order to be a property, P1 must be capable of being exemplified by temporally distant things it follows that there can be another instance of P – call it P2 – at another time. Suppose P2 is later than P1. But since later than is irreflexive P2 could not be P1, contrary to the hypothesis of *in re* realism.

The argument presupposes a principle that may not seem to be true. The principle is that every property must be capable of being exemplified by two or more things which are temporally distant from each other. I am not sure what to say about numbers, for example. But if there are numbers in some robust sense, they seem prime candidates for being non-temporal things. And numbers have properties. Moreover, there are certain properties that are only had by numbers. Take being prime. Since it is a property, it is capable of being exemplified by more than one thing. But the entities that exemplify it cannot be at different times, since they are not at times at all. Yet, this is no objection to prime's being a property.

But although being prime is a counterexample to the principle I used in the argument, its nature is such as to leave the conclusion untouched. Being prime cannot be exemplified by temporally distant entities because it can only be exemplified by non-temporal things. But, *since* it can only be exemplified by non-temporal things it follows that being prime is not temporal. And since abstract properties such as being prime appear to be the only counterexamples to the principle, the conclusion is safe.

The difficulty with the argument is that it assumes *in re* realism. Perhaps it is true that some property F cannot precede itself. But, as long as *in re* realism is in question

one may, instead of inferring the atemporality of properties, infer that properties are tropes. This would allow us to say that the F of one thing precedes the F of another, concede that they are diverse, and yet insist that they are the "same" property. What this dialectic shows, I think, is that *in re* realists at least must reject the temporality of properties.

CHAPTER 3

UNIVERSALS AND TIMES

The Location Argument

In the last chapter I considered an argument purporting to show that *in re* realism is incompatible with the facts of precedence. In the course of answering the argument I provided an account of the general relationship between universals and precedence. Now I turn to an objection to realism which hinges on facts about temporal location – i.e., facts about the time at which something is located. Since this argument hinges on the character of temporal location call it the "location" objection. The location argument will also be a useful launching point for a general discussion of the nature of times and the connection between them and universals.

Thus the argument:

(B1) Suppose x is located at T1 and y at T2.

(B2) Suppose x and y are both F.

(B3) Necessarily, if x is located at T1 and F is a qualitative constituent of x, then F is located at T1.

(B4) Necessarily, nothing has more than one temporal location.

Conclusion:

(B5) Therefore, x's F is not y's F. [From (B1)-(B4)][63]

Note first how the location argument resembles the precedence argument. The crucial premise which connects one with the other is (B3). I argued in connection with the former argument that there is no reason to suppose that because something precedes all its qualitative constituents do. Similarly, I find little to be said for the view that temporal location involves division.[64]

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[63] See Russell (2003, p.145) and (1959, p. 98) for relatives of this argument.

[64] Grossmann (1983, pp. 107-8; 1992, p. 26) agrees that properties lack temporal location.

Just what is involved in something's being located at a time? I will show below that temporal location can be understood in terms of simultaneity. To be located at t is to be simultaneous with a certain state of affairs. Simultaneity, in turn, may be reduced to a complex involving precedence: x and y are simultaneous iff (1) there is a z such that both x and y either succeed or precede it; and (2) nothing precedes (succeeds) x that does not precede (succeed) y. I showed earlier that F's being a constituent of a preceder does not entail that it is a preceder. Therefore the fact that F is a constituent of something temporally located does not entail that it is. That is, (B3) is false.

This reply to the location argument rests on the specific doctrines advocated above and below.   The problems with the argument are more far-reaching, though. These center on (B4). The principle is suggested by the spatial conception of time advocated by four-dimensionalists. If time is really very much like space, one would expect temporal location to be governed by the same axiom which governs spatial location:

(ASL) An entity may not have more than one spatial location at once.

Although (ASL) seems plausible enough, its temporal analogue –

(ATL) An entity may not have more than one temporal location at one place

– does not. Whenever something doesn't move it violates (ATL).

The spatial conception of time encourages a tendency to think of objects as having "spatiotemporal" position, as if spatial and temporal location were only one thing. Among the things which have such position, allegedly, are books. But this conception of temporal location runs counter to pre-philosophical commonsense: if a book has temporal position at all, it seems possible that it have many over its career.

Books, then, seem to be a counterexample to (B4). But, from my point of view, this response has limited traction. This is because I do not believe books are literally temporally located. Temporal location, in the sense of (B4), involves being at a time. This is one way in which it seems likely that something can be temporal. It is a

successful response to the argument insofar as it appears most philosophers believe books are at times. Since many philosophers' systems require that books may be at more than one time, those philosophers should reject this argument against *in re* realism.

So even if (B3) were true, because of (B4), most philosophers should reject the argument.

Could Times Exhaust Time?

The world is temporal insofar as things precede each other. It is also temporal insofar as things are at times. Something may be on Tuesday. It may be at 3 o'clock. It may be at this time. This being so, discovering how universals are connected with time involves discovering how universals are connected with times. Specifically, just as the central question with respect to precedence is whether universals precede, so the central question with respect to times is whether universals are at them. But time, apparently, is more than times.[65] Therefore, even if universals should turn out not to be at times they may yet be temporal.

Is the just-mentioned appearance correct? Could times exhaust time? To some extent following the literature, I divide theories of times into relationist and non-relationist varieties. The relationist holds that to be at a time is to be simultaneous with something. The collection relationist holds that to be at a time is to be simultaneous with a certain collection. The event relationist holds that to be at a time is to be simultaneous with a certain event. On these views a time is respectively a collection and an event. Non-relationists are substantivalists. Substantivalists hold that times are substances.

Say the substantivalist is right in claiming t1 is a substance. To be a substance, as this is understood in some circles, is to be capable of existing apart from everything else.

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[65] Thus Swinburne (1968, pp. 157-8): "The English word 'time' is unfortunately used in two very different senses. In the first sense a 'time' means a temporal instant. . . In the second sense a 'time' is the sum of temporal periods temporally related to each other." Swinburne worries about whether there could be more than one collection of times (instants in his sense) each of which temporally unrelated to the other. I will not address this question.

Does t1 pass the test? It is hard to imagine that it does. Could it exist if numbers didn't? Could it exist apart from its comrade times? But even though it shouldn't, many substantivalists have held that t1 is at least capable of existing apart from all events at it. Perhaps, accordingly, there is a more restricted sense in which times are substances: something is a substance1 only if it is capable of existing apart from everything else contingent. Since times are typically held by substantivalists to be necessary, they seem to pass this test. So if times are substances1, and capable of existing apart from all events located at them, could time be exhausted by times?

The question needs to be made more precise. The question is not whether times could exhaust all reality. The question is just whether times could exhaust what is *temporal* about reality. Could one give an account of time which appeals only to times as distinctively temporal elements? Analogously, on Hume's account causation is not admitted as a fundamental entity.

It is *prima facie* conceivable that to be at a time is to be located at a substance. If one is to hold that time is reducible to times, one must hold that either there is no real connection between an event and a time or hold that the relation is not a distinctively temporal one. One possible view is that being at is a *sui generis*, irreducible relation. In order for this view to help, one would have to hold that being at is not a specifically temporal relation. Otherwise, temporal entities other than times would have been accepted into the fundamental ontology. Another (more promising) possible view is that events *inhere* in times (Earman 1989, p. 7). Inherence, one could then argue, is not anything specifically temporal. On the other hand, it is unhelpful to hold, as Quine does (1960), that being at is partial identity. To be sure, this does succeed in reducing at to a relation that is not distinctively temporal. However, on this view, times could not exist

apart from the events at them, since they couldn't exist apart from that with which they are partially identical.[66]

The most promising route to holding that times exhaust time is to argue that times are substantial1 and being at is inherence. Still, it is somewhat farfetched to imagine that being at is inherence. Commonly, the entity which inheres has been supposed to be a property. Now, the entities which seem the most plausible candidates for being at times are events. I have already discussed several accounts of events. The Quinean takes events to belong in a *sui generis* category. This is incompatible with reducing them to properties. It is possible to imagine holding that, although they are not properties, events are like them insofar as they inhere. Those pursuing this dialectical alternative must also decide whether events are complex. Kim's view requires that all events be constitutively complex (in the sense that they have several constitutive elements). But since Kimian events involve constituent times, it is hard to imagine that they (the events) would then go on to inhere in times. This would require a time to exemplify something which involves itself as a constituent.[67]

Finally, against this view, it must be noted that, generally, if F inheres in x, then x is (an) F. Red inheres in the apple, so the apple is red. But even though allegedly my typing inheres in t1, t1 is not (predicatively) my typing. Indeed this appears to involve a category mistake. Perhaps times substantially conceived exemplify something, but apparently not the events that are at them.

But I will waive these concerns. I have argued that the most promising way to argue that times exhaust time is to hold that times are a kind of substance in which events

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[66] Even if wholes are capable of existing apart from some of their elements, substantival times must be capable of existing apart from all events at them.

[67] Other apparent cases of this sort (this shoe's exemplifying being this shoe) may be analyzed without requiring the entity itself to be a constituent of the property exemplified. The example mentioned in the main text requires this sort of exemplification to unanalyzable.

inhere. One way in which time manifests itself is in the difference between its raining now and its having rained. Any adequate theory of times must accommodate this possibility. Generally, the difficulty is how to understand A-facts on a model with times alone.

It may be argued that to be raining now is to be (tenselessly) raining simultaneously with this thought.[68] To have rained is to be (tenselessly) raining before this thought. To be going to rain is to be (tenselessly) raining after this thought. In the first case, being now has been eliminated in favor of being simultaneous with something. Since times and simultaneity aren't obviously interchangeable, the latter must be reduced to the former. This may be done as follows. A's being simultaneous with B is A's being at the same time as B. Since the analysans appeals only to times and identity, we are left again with only times as distinctively temporal building blocks in our analysis of time.

The past and future, on this treatment, involve before and after, which raise problems of their own. Those problems arise as follows. It is not enough that events be at times, simultaneous with each other, and in the past, present and future. Imagine a world with times. Add events at them. This world would not exhaust the richness of the temporal world in which we live. Times not only have events at them; times come in a certain order. Each time must stand in some precedence relation to every other.[69] Since between, after and some other related temporal connections can be reduced to before, I will concentrate on it. Can the fact that t1 is before t2 be reduced to facts about times and non-temporal entities alone?

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[68] Such theories typically require a relation between the rain and a sentence, as if it could not be raining now unless there were, not only language in general, but this bit of language in particular. Because of the implausibility of this claim, I put the theory in terms of the more plausible connection between raining and a thought.

[69] There are those who try to reduce before to relations between past, present and future things. But these views take A-determinations to be fundamental, and therefore could not hold that times exhaust time.

One promising route in this direction begins by emphasizing that times have inherent quantities. There is a reason why times come indiced. On this view to be t1 is to be *t1*. There is something in the nature of that time that makes it have the quantity it has. Now if sense can be made of this idea one might then proceed to analyze before in terms of less than. T1's being before t2 is t1's having a smaller quantity than t2.

This analysis cannot be correct, since 3 would turn out to be before 4.[70] We might try modifying it as follows: t1's being before t2 is t1's having a smaller *time* quantity than t2. The main difficulty with this move is that it introduces what appears to be a temporal feature into the analysans. What is a time quantity other than an unreduced temporal feature of a time? Since the aim was to reduce time to times alone the analysis is fruitless.

Another suggestion, due to Fumerton, is that before might be analyzed as an internal relation supervening between the internal natures of t1 and t2. Before is not defined, on this suggestion, in terms of the *properties* of t1 and t2, but rather their brute characters.

This does seem to succeed in eliminating all temporal entities and connections apart from times from the fundamental ontological level. However, one difficulty with the view is that it is not apparent that there is anything in the character of this time to make it so that it is before that time. So far as the brute character of the times is concerned, assuming substantivalism, of course, there seems to be no bar on flipping their temporal order.

A final suggestion is that before might be understood in terms of causal connection. Suppose it shown that causal connection is asymmetrical and irreflexive in the way we expect before to be. Unfortunately, it is dubious to maintain that t1's being

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[70] Either numbers do not precede anything at all, or if they do, there seems to be no clear sense in thinking of them as preceding each other. Which would precede which?

before t2 can be reduced to an immediate causal connection between t1 and t2. Times are not obviously the sort of things that enter into causal connections. In light of this, one might argue instead that the temporal priority between t1 and t2 be understood in terms of the right causal connection between some event *at* t1, and another *at* t2. Since at has already been reduced to inherence, there is no danger of circularity.

But this move really is not in the spirit of the substantivalist account of times. On the view, as I have interpreted it, times are supposed to be independent of the events at them. This approach to the relation of being before requires that for times to enter into the appropriate temporal order there must be events at them. In fact, the temporal order between the times is metaphysically parasitic upon a certain relation between the events. This must strike many defenders of substantival times as putting the cart before the temporal horse: the temporal relations are instead to be understood on the basis of some connection between their times.

I conclude therefore that time could not be made up of times alone. Later, I consider whether time requires times at all.

<div align="center">Why Times Aren't Substances</div>

Let us begin our investigation of theories of times with the non-relational substantivalist view. There are many scientific considerations for thinking times (like time) are one way or another. There are two reasons for me to set these aside. First, I don't know enough about these considerations to discuss them intelligently. Second, there is plenty to discuss in connection with the nature of times as they present themselves in everyday non-scientific experience. (A neophyte like myself might indeed expect the scientific appearance of times could not contradict their ordinary appearance, but never mind.)

I have considered a couple of senses in which something may be a substance. A substance1 is something capable of existing apart from every other contingent thing. A substance2 is something capable of existing apart from every other thing, full stop. As I

noted, it is hard to imagine that times are substances2. If they were it would be possible for there to be only one time – and nothing else. It's hard to imagine there being only a time and no numbers, say. But it is also hard to imagine there being only a time – and no other times.

Since on some substantivalist views times are necessary, one might try holding that times are substances1, since, so construed, they would be capable of existing independently of everything contingent. This would helpfully capture the substantivalist thesis that times can exist apart from all entities at them. Of course, this consequence holds only if there are no necessary events at times. On one of Chisholm's views, events are defined as that class of states of affairs which involve contingent substances. This guarantees that no event will be necessary. This constraint fits our (well, my) pre-philosophical inclinations nicely.

This does seem to me the most promising route for understanding at least one aspect of the substantial character of times. There are other problems concerning the metaphysical character of a purported substance to be resolved (a question I raised and set aside earlier). Some further questions may be affected by the substantivalist's answer here. Suppose the substantivalist holds that times are substances insofar as they are the right kind of bundle of properties. The substantivalist must say something about what is involved in an event's being at a time. One view, as we've seen, is that being at is inhering in. But it is not obvious how an event could inhere in a time construed as a bundle of properties.

It might be objected that being at should not merely be identified with exemplification, since obviously in many cases one entity is exemplified by another without being at it. The book seems to exemplify redness even though redness is not temporally located at the book. Red also seems to exemplify the property of being a property even though being a property is not at red.

The objection presupposes that being at and exemplification are one. But the view is not that being at and exemplification are one, but that being at is a species of exemplification. Therefore, the objection does not succeed.

It could be held that the views - that times are bundles of properties and being at is inherence - do not fit together just because nothing *inheres* in a bundle of properties. Indeed if particulars are bundles of properties, nothing inheres in them, either. The problem here, it seems to me, is merely terminological. One may choose to use "exemplification" as the neutral expression and hold that inherence is one way to understand exemplification. One might then go on to limit inherence in this narrow sense to what, say, Aristotelian particulars do when they exemplify their features. It would then still be possible to construe being at as exemplification, since on this view bundles of properties do exemplify things, though nothing inheres in them.

Those who want to identify times with some bundle of properties should then say something about what is involved in something's being at the bundle of properties. One could hold, as I mentioned before, that being at is *sui generis*, period. On this account it is neither substance nor property nor relation nor any of the other familiar categories. It belongs to its own category.

There is a broader question to be asked of the substantivalist: Why would one be a substantivalist in the first place? What motivates the view? One main reason for holding the view seems to be a sense that a time is really wholly distinct from the events which occur at it.

What, more specifically, is this intuition that the substantivalist is trying to capture? Suppose some event E happens at t1. It seems logically possible that E should not have happened at t1, either by happening at some other time[71] or by failing to happen at all. And indeed these circumstances are logically possible. T1 might have existed if

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[71] I have addressed the concerns of those who find this incredible above (p. 67).

either scenario had taken place, and it is crucial that one's theory of times capture this fact. One way the fact can be captured is by maintaining that times are wholly distinct from the events at them. This, however, in itself, is compatible with either a relationist or a non-relationist view. It is compatible, first, with the event relationist analysis (on which more anon) and with substantivalism. It is not obviously compatible with collectivist relationism. If t1 is but the collection of events at it, and E is in the collection, t1 cannot well survive its absence. There are versions which claim to amend the view to meet this objection, but at an ontological price too high to pay.

But for now our concern is the substantivalist. According to him (in part), t1 is one thing, E wholly another. T1, being a substance in which events perhaps inhere, is not an event. Now, the main difficulty with this position is that I have never encountered an entity answering this description. Since they are purportedly necessary to the existence of time as such, one might expect such entities would be plentiful in experience.[72]

For the substantivalist, the dialectical alternatives available in responding to this objection are copious. It might be argued that I have in fact experienced these times but wasn't aware when I was. Indeed if times are as omnipresent as it would seem they should be on the substantivalist view, a time should be an element in my experience even now. Since there may be among the objects of my experience things of which I am unaware, it is possible that a time is among the objects of my present experience even though I am not aware of it.

But what explains the fact that I *cannot* bring this time into explicit conscious awareness? I am sometimes aware of a sound, though as it were in the background. But my experience of this time is surely not like this since I can bring and have brought

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[72] According to Nerlich, although substantivalism involves the thesis that space-time is "metaphysically peculiar, perhaps even bizarre" insofar as it is "immaterial yet with concrete relations to concrete things," the "most worrying" aspect of space-time so construed is that it would be "elusive to perception" (2003, p. 282). It is not clear, however, whether the elusiveness of times is an accidental or necessary feature of the view.

sounds into explicit conscious awareness. But I have yet to succeed in bringing any time into explicit conscious awareness.[73]

The problem is that I cannot find in my experience some important element of some philosopher's ontology. This problem is not unique to this account of times, or even the philosophy of time. For example, G. E. Moore famously held that (intrinsic) good is an indefinable property, one with which he found himself acquainted. C. S. Stevenson and many others have rejected Moore's view, often because they failed to find any such property in the world. Thus an exasperated Stevenson: "I recollect no Platonic Idea, nor do I know what to try to recollect. I find no indefinable property nor do I know what to look for" (1998).

In the case of goodness, there may have been an impasse between Moore and Stevenson. One found a property the other just couldn't. But here I don't believe there is an impasse. I think substantivalists tend to reject the principle that a kind of entity should only be admitted if it has been or can be experienced.

I believe in the principle of acquaintance,[74] according to which a fundamental ontological category may only be accepted if one has experience with it. But even if the principle should not by itself sway, it seems to me one consideration against accepting a kind of entity never experienced.

One problem that can arise in such situations is that one does not know well enough what one is looking for. I am not likely to believe I have found cows if I don't know what they are. I have read the works of substantivalists, which serve in this context as (albeit imperfect) instruction manuals in the phenomenological investigation, and I

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[73] The possibility that I may be unaware of my awareness should be acknowledged also at this level, but there is again the disanalogy with the case of sounds and other occasionally "marginal" objects of consciousness.

[74] So named in honor of a closely related principle championed by Bergmann.

must concede again that after the best effort I am capable of not to have found the entities they describe.[75]

These epistemic disadvantages however may be outweighed by other considerations, as for example the above-mentioned datum that times are independent of the events at them. But there may yet be strictly ontological objections to substantivalism. Before getting to these let us consider some different ways in which the view might be developed in light of different questions the view must answer.

One question concerns the nature of these substances. Are they bundles of properties, as suggested earlier?[76] Are they bare particulars? Are they Aristotelian particulars? Say times are bundles. Could being at still be construed as exemplification? It could if events are properties. Bennett (2002), for example, holds that events are properties; specifically, tropes.[77] John's walking is a walking trope. The view leaves open the possibility that the walking trope might partake in the Walking universal. On this view, one could hold that these tropes are at times insofar as they belong to time-making bundles. It is also possible to imagine a realist version of this same view, on which the elements of time-bundles are universals instead of tropes.

The view faces the following difficulty. On some views, a bundle changes its identity as it changes its constituent properties. If a time is the time it is only if it has the very bundle of properties it has, then times could not survive a change in their events.[78]

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[75] It is worth emphasizing that the problem is not merely narrowly experiential, but broadly cognitive. It is not only, say, in my olfactory experience that I fail to discover substantival times, but also in my doxastic life.

[76] For those who might balk at this use of "substance," the terminology might easily be replaced so that substantivalists might be called "particularists." On this terminology, being a substance and being a bundle of properties are mutually exclusive.

[77] He also thinks, unfathomably, that this is Kim's view.

[78] The point, mind you, is not that a time can literally survive change, but that a time *would* be itself even though it had not had the very events which are at it.

It can be denied that bundles have such strict identity conditions (Loux 1979). Alternatively, it could be maintained that times are complex bundles, with a core and a peripheral layer of constitutive properties (see Simons 1994). At the core level, perhaps, a time has its quantity, the property of being a time, and such. These properties it could not lose or alter without losing its identity. At the peripheral level it has its event properties. These it can lose or alter without changing its identity. This view obviously is compatible with holding that being at is exemplification.

Since one of the data driving this view is the independence of events from times, perhaps it is more promising to hold that events are not literally properties of time-bundles. There are a couple of ways to pursue this idea. One is to deny that being at is exemplification. One may retain the view that times are bundles but hold that being at is *sui generis*. There is an inelegance in this since the substantivalist is forced to admit that times and being at are rock-bottom entities. Relationists, on the other hand, claim to be able to reduce both.

Even if being at were admitted as *sui generis*, there is still the question what kinds of entities it relates. We know on this view it must relate bundles of properties, since times are such. And it should relate events. On one hand one is tempted by a view according to which both ends of being at hook up to the same kind of thing, thus suggesting a bundle of properties view of events. On the other hand, since times are on this view rather unique, one may want to allow that being at is (figuratively speaking) rather asymmetrical. The question is particularly important in the context of the question of whether universals are temporal. One way in which they might be is if they are at times. Whether they can be *at* times evidently depends on the kind of entity being at can relate.

There is also the question whether such things as books are at times. Suppose one wants to say they are. One may then choose to identify books with events, and thus give the same account of how being at relates books to times that one gives for events and

times. If books are not events then it somewhat harder to see how they are connected to times. Specifically, it is difficult to see how the exemplification construal of being at is compatible with allowing that books are at times. Books are not the sort of thing to be exemplified – whether they are Aristotelian substances, bare particulars, or bundles of properties.

Those inclined toward substantivalism may have reason to suppose universals are temporal in the sense of being at times. I have considered at some length the possibility that being at is exemplification. If it is, then universals are surely among the things at times.

One difficulty of this view is the one noted in connection with Armstrong's account of the temporality of universals. Since some apparently incompatible universals are exemplified at once, it appears to follow that a single time exemplifies apparently incompatible universals.

Another difficulty of the view is that it seems that some of the properties exemplified by a time do not appear to be at that time. Hard as it is to imagine that red is on Tuesday, it is even harder to imagine that the property of being a time is on Tuesday.

Let us consider next the possibility that times, though particulars, are not bundles of properties. Someone might hold that times are bare particulars. Being at could then be identified with exemplification, and events with properties. One drawback of this view is that it requires that bare particulars be capable of existing apart from their properties, on the plausible assumption that the substantivalist will want to hold that times don't depend on the events at them. For good reason no one who has seen fit to accept bare particulars has allowed this possibility.

There is the view on which times are a kind of Aristotelian substance. This is a somewhat difficult view to fathom, as the somewhat mysterious character of a substantival time is so far removed from the character of a paradigmatic Aristotelian

substance – a tiger, say. For one thing, a tiger survives changes. Times surely don't, since they don't last. Tigers also belong to species in a way times seem not to.

Finally, it is possible to hold that although times are substantial they are substances in a class all their own, not to be compared too closely with this pen or that tiger, or even with the pen-underlying bare particular. This view has the disadvantage that on it times are substances in name only, bearing no important resemblance to the other entities one is inclined to call by the name.

This concludes my discussion of the conceptual possibilities of a substantival account. As I see it, the best reason to accept substantivalism would be the failure of relationism. Why suppose there are these extra time entities unless one is dialectically forced to? This is especially so considering their utter epistemic opacity. Since I believe a certain version of relationism can account for all the relevant data, I reject substantivalism.

It is worth noting also that my account of the relata of precedence is hard to square with the possibility of substantivalism. I argued earlier that only event-like entities may stand in precedence relations. I called the entities states of affairs – the exemplification of a property by something. But the important point is that for one thing to precede another the thing must be a happening. And the exemplification of a property by something is exactly a happening. The fact that times precede but don't appear to be happenings is one reason to think substantivalism false.

It is conceivable that the substantivalist would hold that a time is a state of affairs of some kind, thus providing an event-like relatum for precedence relations. He could then go on to argue that this time-state of affairs is independent of all the entities at it. One problem here is this is not altogether very different from event-relationism, to be discussed later. It may be different insofar as the event-relationist holds that times are contingent entities. But with respect to the rest of the ontological character of times, the two views do not differ. This substantivalist, however, needs to find some promising

entity to be the substantial substratum of the time state of affairs. Here the substantivalist

may want to have recourse to the idea that times are *sui generis* substances. Again I think

the main motivation for pursuing this route would be the failure of relationist views.

Since those do not fail I see no reason to pursue the farfetched idea that there are *sui*

generic time substrata.

<div align="center">Times and Events</div>

The collective relationist holds that times are collections of events. There are

different ways to develop this view. One might hold that for E to be at t1 is for it to be

simultaneous with F, G and H (supposing F, G and H to be the other entities at t1). On

pain of circularity, it better be possible for this relationist to give his account without the

parenthetical remark. Is it possible?

One cannot say that for E to be at t1 is for E to be simultaneous with all the t1

entities. One could try saying that E's being at t1 is E's being simultaneous with

everything it is in fact simultaneous with. This seems to avoid the circularity. It has the

further virtue that E's being at t1 is something more than E's being simultaneous with

just any other entity.

A closely allied collectivist view is that E's being at t1 is E's being a member of

the class (collection; the distinction doesn't matter here) of all the entities with which E is

simultaneous. This reduces being at to being simultaneous together with the relation of

being a member of a class. I don't see anything particularly significant that would lead

one to choose one view over the other.

Collectivist relationists have tended to shy away from such crude views. They

have worried that these crude views mischaracterize the relationship between events and

times. For one thing, they seem to have the consequence that t1 would be different if E

hadn't happened at it. Say t1 is but the collection E, F, G, H. Since collections can't

survive changes of membership t1 wouldn't be if E had not been. T1 also could not

survive the addition of any events. Collectivists have tried modifications of varying

degrees of ingenuity to try to meet these difficulties.[79] Since they do not affect the heart

of the view, I will spare the reader a discussion of these sophistications.

Whatever way he goes, the collectivist identifies being at a time with simultaneity

or a more complex relation involving simultaneity. How does this square with the

possibility that universals are at times? I have argued that it is possible to reduce

simultaneity to a complex made up of precedence relations. The bearers of simultaneity

relations therefore must be the bearers of precedence relations. Since, as I've shown, the

bearers of precedence relations cannot be universals, the bearers of simultaneity relations

cannot be universals. And it finally follows that the bearers of at relations cannot be

universals. Therefore, although I believe collectivist relationism is false, its truth would

not have any great effect on the central question of the temporality of universals as it

concerns their connection with times.

The other kind of relationism – the one I favor – is event relationism. This is the

view (to my knowledge) first developed by Chisholm (1996). Chisholm is fond of

describing it as a view on which there are no times. But this is misleading. There are no

times only in the sense in which substantivalists have thought times must be. I suspect

perhaps this is what Chisholm himself meant. Rather than ask whether there are times, I

would prefer to assume that times exist but then go on to ask what their character is.

To see the intuitive pull of this view let us consider the data that incline us to

provide a theory of times in the first place. One temporal fact that leads to the postulation

of times is the possibility of asking when E happened. In reply to the question, it is

common to answer, say, Tuesday. But notice that this is really shorthand. The more

fundamental and almost always possible answer is that E happened when F was

happening. This provides in many cases as informative an answer as Tuesday. As a

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[79] See Forbes (1993), for example.

matter of fact, the Tuesday answer is parasitic on the second kind of answer. Times, in the first instance, provide a way to situate an event in a temporal map.

Another kind of question that gives rise to the investigation of times concerns temporal distance. One might be interested for example in how long it has been since E happened. One may also be interested in how long E took to happen. In either case, times are involved in the typical answer. But in either case the kind of answer we found more fundamental in the case of the previous paragraph provides the cue to the more fundamental answer in this case. The measurement of temporal intervals is greatly facilitated by the world's repetitiveness. The Earth goes around the sun again and again. That it does so allows us to say that it has been, say, six turns of the Earth around the sun since E happened. It may also be that E took six turns of the Earth around the sun to happen. In either case the fundamental entity at work is a turn of the Earth around the sun. A time on this view is but an ordinary event put to an out of the ordinary purpose.

On this view, like substantivalism, but unlike crude collectivist relationism, it is possible for times to exist apart from the events that are at them.[80] E happened as the Earth revolved around the sun for the thirtieth time, but even though E had not been the Earth might've revolved around the sun for the thirtieth time.

The view has an air of circularity about it. T30 is but the 30$^{\text{th}}$ *time* that t. Doesn't this introduce the notion of a time into the analysis of a time? I don't think so. What is crucial is that it be possible to count occasions of a state of affairs. If there are thirty of a certain state of affairs, and they precede each other, then each is a time: here the antecedent makes no mention of a time.[81]

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[80] Since these times may exist apart from the events at them it seems not inapt to call this a kind of substantivalism. But since the event relationist's time's are like any other temporal happening, it seems useful to set the view apart.

[81] Doesn't this mean that a state of affairs is a kind of thing, multiply exemplifiable? There are of course kinds of states of affairs; but a state of affairs is not itself a kind. One way in which there can be many of Paul's running is if Paul runs on many occasions. In such cases, since the states of affairs have all the same constituents, the difference between them is brute. See p. 143.

The first time x is F may be defined as follows: x is F and has never before been F. X is F for the second time if x is F, x has been non-F, and x had been F (*ibid*., p. 62). It is useful to note the complication that the Earth's not ceasing to revolve around the sun is compatible with the event's being of use in keeping time. But there are relations in which the Earth stands to the sun (e.g., the Winter solstice) which it then ceases to, which may be used to keep track of how long a certain event has lasted or how long it has been since a certain event took place.

Now there are two kinds of states of affairs. There is *John's* singing Prince's "Kiss," and *someone's* singing Prince's "Kiss." John may sing "Kiss" many times. But *someone* may also sing "Kiss" many times. Which kind of state of affairs is required for the composition of a time?[82] Either is possible. It is possible to measure temporal distances either with states of affairs of the first kind or of the second. One may be interested to know how many times John has sung "Kiss," but also how many times "Kiss" has been sung. Either would offer a way to measure temporal extension, though perhaps the former offers greater possibilities for precision.

So on this view times might have existed even though nothing was at them. In this way the view is kin to substantivalism. But on it also it is possible for time to exist even though there were no times. It is possible that the world would be temporal even though the temporal entities are not repetitive in the way required for times to exist. Substances might exemplify properties in this world. And thus there might be states of affairs, and these could stand in precedence relations. So the world would certainly be temporal. But so long as the exemplification of properties did not repeat, there would be no times.

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[82] The first kind of state of affairs raises certain special problems in connection with the account of persistence I favor, problems I discuss in the next chapter.

It may seem counterintuitive to hold that things could happen but there would be no *time* when they happened. Even in the world in which I have imagined states of affairs are still simultaneous with each other. So in answer to the question when something happened, one could of course say that it happened when a certain something else was happening. And this might be construed as *a time* when it happened. But there is another crucial aspect of time that would be missing: there would be nothing like days, months, years or seconds. Because properties would not recur over time, the measurement of temporal distance could not occur in the world as we have it.

This view, to some extent in the collectivist vein, is a reductivist account of times. According to the collectivist, times are a derivative feature of the furniture of the world. On the collectivist view, however, as already noted, it seems to be a necessary truth that the world is made up of times. On the event account, times are contingent derivative features of the world. A time is something which could easily have failed to exist.

How does the event relationist reply to the accusation that he gets the relationship between events and times wrong? On crude relationism, if any event is removed or added to a time the time must change its identity. Does this follow on event relationism? It does not: suppose I try to keep track of how long it has been since I washed up on a deserted island. Say I cook a snake on Day 3. Would Day 3 still be what it is if I had not cooked the snake? Would Day 3 still be as it is if I had also cooked a crab? Yes and yes. Day 3 just is the third occurrence of the Earth's revolving around its axis since I washed ashore. That state of affairs – the Earth's revolving around its axis – is wholly distinct from my cooking of the snake; as it is wholly distinct from my possible cooking of a crab. Indeed, as the substantivalist holds that times could have existed if no event had happened at them, so the event relationist may hold that a time could have existed in the same circumstance. But the substantivalist, unlike the relationist, typically holds that times are necessary. And this is not at all in the spirit of relationism.

But what if after Day 2 the Earth ceases its usual journey around the sun? Perhaps it does not move at all. Would this be Day 3, nonetheless? The same problem arises if, unknown to me, the Earth is replaced with a twin which does go around the sun. This is not by hypothesis the Earth's third journey around the sun. So, is this Day 3? And imagine that I landed on the island not 3 but 4 days ago, would Day 3 become Day 4?

I suppose in the first case, Day 3 would not be. But there would be a Day 3*. Let me explain: it would be fairly easy in such a situation to determine other events which together were coterminous with a day. These events, if they occur, could then be used in the stead of the day to continue the counting from before. The recurrence of a sort of event is therefore not crucial to the dating of events.

In the Twin Earth case, this seems to me no more problematic a consequence than that faced by the substantivalist. Suppose the substantival Day 3 were replaced with a distinct albeit indistinguishable Day 3*. They would be different though we would be none the wiser. In this respect, the event relationist is no worse off than the substantivalist, and certainly no worse off than the crude relationist, who is forced to concede diversity if any Day 3 event changes. Finally, if I landed not 3 but 4 days ago, then it does seem utterly intuitive to suppose I was wrong and this is not Day 3 but Day 4.

Let me sum up the account. A time may exist if just a single dating state of affairs exists. This arises in the case where it is important to discover when something happened. No recurrence of properties is required for this sense of a time. Times may exist if a single substance exemplifies a property repeatedly. This arises in the case of the Earth's revolving around the sun. This notion of a time is ideally useful in the measurement of temporal distances. Finally, times may exist if there is a recurrence of a property over time even in different substances. One may thus keep track of how many tones of a certain pitch there have been since a certain event. Here it does not matter what substance is exemplifying the property.

Again, the important point is not so much the correct account of times but the correct account of the connection between universals and times. Although obviously being right about times helps in being right about the connection.

The state-of-affairs analysis seems ill-suited to handle certain kinds of phenomena involving times. Suppose it is the case that someone cannot be offered a job at *this time*. Or suppose it is raining at *this time*. In either case it is difficult to fathom that this time is a specific repeated state of affairs having the appropriate temporal relation to a long-ago event. For example, it seems possible that it is raining at this time even if Jesus had never been born. Doesn't this suggest that this time – and a time in general – is something radically other than a temporally ordered repeatable state of affairs?

In the first case, I am inclined to argue that although this time is not any state of affairs involving an important initiating event, it is some other state of affairs. Which state of affairs it is depends altogether on the context. At this time may be when the company has just been indicted for insider trading. When so and so has happened, in this context, may be understood in terms of simultaneity with something. And simultaneity need not be understood in terms of times, as we have seen.

In the second case it seems to me that raining, raining now, and raining at this time all amount to the same thing, namely raining. It strikes me, therefore, that in many contexts "this time" does not add any information, but merely emphasizes a contrast between what is going on, and what has or will; or what is going on and what one might have expected to be going on.

I have argued that the substantivalist is in the best position to maintain that universals are literally at times. That view, I suggested, could hold that being at is exemplification, with times the exemplifiers. The view must decide whether only events are at times or whether universals are also. If the former, the substantivalist must accept Bennett's view that events are properties. Otherwise, the substantivalist may argue that events are not universals, although universals are also exemplified by times.

On either version of relationism, it seems farfetched to imagine that universals are at times. The collectivist holds that being at is being simultaneous with something. But plainly universals cannot be simultaneous with anything. As I have argued, simultaneity should be reduced to precedence, which can only relate states of affairs. If the collectivist relationist identified being at with being a member of a certain collection, then also universals are not times because they do not belong to the appropriate collections. Universals are not members of the class of events simultaneous with each other, both because they are not events and because they are not simultaneous with anything. With respect to accounting for being at, the event relationist in no way differs from the collectivist.

<center>The Adverbial Theory of "is F at t"</center>

But if event relationism is true, and only states of affairs are at times, then it follows that physical objects, not being states of affairs, are not at times. And insofar as times are concerned, physical objects cannot literally be connected to them. Since manifestly physical objects are at times, something must have gone wrong. So goes one objection to the argument developed so far.

What reason is there to think that physical objects are at times? The main reason, I suppose, is that physical objects have properties at times. This apple, for example, may be red at (time) t – call this fact (A*).[83] Since of course something that has a property at a time is temporal (see Smith 1998, p. 148; p. 162), physical objects must be temporal.

I will first provide an analysis of (A*). Then I will criticize some alternatives. First compare two forms of (a) time-involving facts. First, there is the fact that something may have such and such a property *at a time*. Second, there is the fact that something may *be at a time*. The only sort of entity that can be at a time, literally

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[83] Smith (1998, p. 161) argues that since physical objects are in time, and if physical objects are bundles of properties, then properties would be at times. But physical objects aren't in time. And even if physical objects were bundles of properties, it wouldn't follow that the properties would be at times.

speaking, is a state of affairs. I propose, therefore, to understand the first kind of fact as a derivative form of the second.

For some state of affairs S to be at t_n, recall, is for it to be simultaneous with the nth occurrence of some significant event. For the apple to be red at t3, then, is for the apple's being red to be simultaneous with the third occurrence of a certain landmark event. This of course is all entirely compatible with the apple's not preceding anything. And therefore it is compatible with the apple's not being temporal.

Not everyone sees matters this way. Van Inwagen (2001, p. 127), for example, suggests that "at t" is to be understood as an adverb modifying the predicate "is red." As "quickly," which modifies "is walking" in

 (H2) Paul is walking quickly,

so "at t" modifies "is red" in (A*). At t is a way something can be red. Being red at t, like walking quickly as had by Paul, is then really a single property the apple has. (One might refer to it as being-red-at-t, the temporalised version of being red.[84]) Let's call this the adverbial theory. On the adverbial theory, since being-red-at-t involves a temporal constituent, it must be a temporal property. And since the apple has it, it follows that the apple has a temporal property.

Naturally there are different versions of the view. One may be a Platonist or Aristotelian, tropist or realist about such properties. Also, somewhat more importantly, one may want to decide whether all properties are temporalised or not. The adverbialist should also determine what is an appropriate model for understanding the modification connection between at-t and is-red. Should it be understood, as I have suggested, in the way the relation between quickly and is walking is understood, or perhaps in the way

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[84] Or, as Wilson calls it, the "complete" property (1955). Prior (1959) complains that "in August" is not a *way* for something to be red. I concur: There may be a kind of red which only shows up in August, but still the kind of red it is is one thing; its showing up in August is another.

dark and is red is understood? Or perhaps the adverbialist may indeed want to insist that there is no instructive difference between these modification connections.

It is possible to hold, also, that although red-at-t is just a single property, the "connection" between at-t and red is not the metaphysical correlate of the grammatical connection between verb and adverb. Perhaps either there are no distinct elements in these temporalised properties, or perhaps the elements are distinct but stand in some other connection.

One argument against the adverbial theory depends on the exemplification conditions of properties so construed. Suppose t is earlier than now, t*, and that the apple is brown. Is the apple (now, of course) red-at-t? Either it is or it is not. Suppose it is. Then it seems to follow that something red is exemplified at t*. But surely it is logically possible that red is not exemplified at t*, even if the now existing apple was red earlier. Claiming that the apple is now red-at-t precludes this obvious possibility.

The adverbialist may claim, alternatively, that the apple does not exemplify red-at-t now. This, it seems, cannot be merely a contingent fact. There seems to be no contingent fact about the world as it is now which would determine that red-at-t is not exemplified. Therefore, it is a necessary truth that red-at-t is not exemplified now. But then, if all properties are temporalised, it follows that no property is retained from one time to another.

How might the adverbialist respond? He might begin by claiming that my challenge is ambiguous. One question could I be asking, he might begin, is whether red-at-t is exemplified at t*. The answer to this is unproblematically no. He might claim this is rather like the question whether the apple's being red is blue. But, I respond, one may simply ask, at t*, whether red-at-t is exemplified. Here I think our discoveries about the relative superficiality of the nature of times serve us in good stead. Sure the apple may be red while something else is going on. But this is an extrinsic feature of its being red. It is at least intelligible and indeed quite common to wonder not whether something has a

certain property at some time but just whether it has the property. And it is intelligible and common for it to *be the case* that something just has a property.

If the adverbialist concedes that red-at-t is exemplified now (t*), then does it follow as I suggested that red is exemplified now? Perhaps it does not. The adverbialist may argue that red is never exemplified, just because there is no such property as red. Again there are dialectical alternatives here. The adverbialist may maintain, as I suggested earlier, that all properties are temporalised. He could hold, therefore, that there is no such property as red, but that instead all such properties are of the form red-at-t, red-at-t* and so forth. One may then maintain that red-at-t is exemplified now without conceding that red must also be exemplified now.

Herein enter the alternatives. It seems necessary for the adverbialist to concede that even if there is no such property as red *simpliciter*, there is the property of being red-at-some-time. This would stand to being-red-at-t in the way that being some color stands to being red. And surely in conceding that red-at-t is exemplified now, the adverbialist must allow that being red-at-some-time is exemplified now. But he may go on to argue that this is not counterintuitive. If the apple is red at t, then there is no problem with maintaining that being red-at-some-time is exemplified now. After all the apple was red at some time, namely, t.

I think probably the main line of difficulty with this response is its insistence that one may not simply ask whether red is exemplified. Nor is it plausible to maintain that even though red-at-t is exemplified, red is not. For, on this view, the property being red is more fully the property being-red-at-some-time. And if red-at-t is exemplified it follows that red-at-some-time is also.

Further, t is surely in some way a constituent of red-at-t. If the apple is red-at-t at t* it follows that t is a constituent of something which is at t*. This seems absurd. I have of course repeatedly urged that something non-temporal can be a constituent of something temporal, but this is a different kettle of fish. A time t is essentially temporal

and yet it is involved in something contemporaneous with another time altogether. So t, being essentially temporal, cannot be a constituent of something contemporaneous with a later time t*.

Finally, red-at-t does not seem to be an appropriate entity to take as fundamental. Let us ask whether red-at-t is a pure or impure property. (An impure property, again, is one that involves a particular as a constituent.) On any of the views we have investigated it turns out to be an impure property. The substantivalist holds that a time is a substance. If substantivalism is true, red-at-t could no more be a rock-bottom property than red-three-feet-from-Paul could be. Collectivist relationism asserts that times are collections of events, which are just as particular as the events. And on the event relationist view, times are just (more or less) ordinary events. Therefore, on any of the initially plausible views of what times are they seem to be both particulars and in themselves independent of properties such as red. It can't be, therefore, that being red somehow involves a time. If, as I believe is true, impure properties are to be reduced in terms of their pure constituents together with relations to their impure elements, one cannot accept such things as red-at-t as the end of the ontological story.

There seems to be good reason for inferring then that the apple at t* is *not* red-at-t. But there are two untoward consequences of this view. First, as I mentioned earlier, if one holds that all (perhaps contingent) properties are temporalised, then one must deny that something existing at two times can have any (such) properties in common. So on this view, the passage of time is a logically sufficient condition for the apple's changing its color. If it was Sunday and is now Monday, the apple has *ipso facto* changed its color. But the changes in the color of an apple depend on more than this. The passage of time alone does not *constitute*, never mind entail, change in a leaf's color. Even if it is common for apples to change their colors from one time to another, this is certainly no metaphysically necessary feature of the world. It is in fact common to not notice any change in the color of an apple at all.

Second, although the view does not entail, it surely invites the temporal part analysis of persistence. If the apple at t has no (contingent) properties in common with the apple at t* then why not infer that the apple at t is diverse from the apple at t*? This is an inelegance of the theory, because it denies the possibility of change. The apple can only change from t to t* if *it* acquires or loses a property.

It is possible to see what color this apple has just by looking at it. The view that all properties are temporalised is incompatible with this fact. I can discern, of course, that it is some time or other, and therefore that the leaf is red at some time. But the apple's specific color must be the specific property of being red at some certain time. This property I cannot discern by just looking at the leaf.

Further, suppose I judge that the apple is red at t. In fact, it is not t. One is not inclined to say that I got the color of the apple wrong. Therefore, the color of the apple cannot be its having the property of being red-at-t.

Another argument against adverbialism is that there aren't properties such as F-at-t at all. Armstrong has proposed one criterion for determining when something is a property. The criterion is this: F is a property just in case F has or could have causal efficacy. The principle should be understood more precisely so that F need not itself be a cause or possible cause. On Armstrong's own view (1984), properties are not strictly speaking causes. Instead, a property is a constituent of a state of affairs which is properly speaking the cause. So the criterion is that for F to exist it must be such that it is or could be a constituent of a state of affairs which is a cause or effect.

Could F-at-t be such a property? Could the fact that something is red on Tuesday be the cause of something else's occurring? This seems unlikely. There are apparent causal relationships into which such states could enter but these all seem to involve intentional states. One may be provoked to anger because something was red on Tuesday. But this shouldn't sway us to accept these properties, since I may also be

provoked to anger by the fact that the thing was a unicorn, even though, since there are no unicorns, there is no property of being a unicorn.

It must be admitted that the causal principle is but a rule of thumb. Armstrong himself accepts it on strictly epistemic grounds. We couldn't have knowledge of a property that didn't have causal efficacy. Even though successful this would not show that there could not be causally inert properties. In fact, on Armstrong's own account there are properties which aren't constituents of causally related states of affairs. There are higher-order properties, for example (1978a, p. 138).

It appears that Armstrong's rule of thumb is right: if we cannot find a certain property to be a constituent in any causally efficacious states of affairs we should deny it existence. But as noted the principle has two kinds of exceptions: first, properties of which we have knowledge not through their causal efficacy; second, second-order properties. Could temporalised properties fall into either category?

One might deny that all properties are temporalised.[85] There is good reason to do this in any case for the properties of, for example, mathematical objects. The number 2 is just prime - not prime at this or that time. But perhaps even the properties of contingent objects may be either temporalised or not. The apple, on this account, may be both red and red-at-t. But now it seems that non-temporalised properties can account for change. And they seem to be what we make judgments about in any case. So what good are the temporalised properties?

<u>The Relational Theory of "is F at t"</u>

The fact that something is red does not entail, then, that it exemplifies the temporalised property of being-red-at-some-time-t. Another account of exemplification, advocated by Mellor (1981, pp. 110-14), is the view that "is red-at" and its kin make reference to a relation between the apple and the time – thus the "relational" theory of

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[85]McTaggart appears to have this sort of mixed view (1927).

temporal predication. On this view, if the apple is green at t1, then red at t2, then brown at t3, it is a literally identical entity having all three relations.

Suppose the view is correct. Being at (in the temporal sense) is surely a way of being temporal. Since being red at is a way of being at, it follows that the apple has a temporal property and therefore is temporal. If my intuition that apples are not temporal is to be salvaged, this account must be rejected.
Green and red appear to be incompatible properties: nothing can have both at once. But the view envisaged entails that the literally identical thing can be both green and red – in a way. If green just is green-at, then it would appear the incompatibility of these properties would need to be reinterpreted. But perhaps something's being green is not the same as its being green-at: perhaps in somewhat the way that my being to the left of something is not the same as my being to the left of Bob. The advocate of the view could then accept the incompatibility of green and red.

But, in any case, is the relation between green at and red at on this view really so very different from that between green and red on the common sense view? True, a single thing can have both properties in relation to more than one time. But it is easily compatible with the view to hold that nothing can have both green-at and red-at to a single time. And this amounts to saying that nothing can be both green-at and red-at at once. And therefore green-at stands to red-at in just the way that green stands to red. So even if Mellor wanted to insist that green is really green-at he could accommodate the sense that these color properties are incompatible.

Lewis complains that this view is "simply incredible": "If we know what shape is, we know that it is a property, not a relation" (1986, p. 204). It would be surprising indeed if all properties were of this sort. For one thing, it would follow that there were no monadic properties. This is a consequence of the view which does not hinge on the acceptable interpretation of times. Mellor insists that his account of temporal predication is compatible with any theory of times. Perhaps this is true. But on any theory of times

his account entails that if all properties are of this sort then there are no monadic ones. And this is one way of taking the suggestion. The leaf is not green *simpliciter*. It is instead green at some time.

LePoidevin, in defending the view, insists that red-at-t is an intrinsic property because it has an "individuation [condition which] does not involve essential reference to particulars" (1991, p. 73). This requires some comment. On LePoidevin's view, a property is intrinsic if its identity does not essentially involve the existence of an *ordinary* particular. Red-at-t probably does essentially require the existence of a particular, namely, t. It strikes me that LePoidevin's criterion is rather *ad hoc*, though it must be admitted that in such abstruse matters intuitions are somewhat inscrutable – not to say nonexistent. A property is relational when its exemplification requires more than one thing. Exemplifying red only requires me. Exemplifying red-at-t requires me and t. If LePoidevin's view is that red-at does not require any particular other than t, then it is true, but it only tends to show that red-at is pure, not that it is intrinsic.

But, still, I don't believe the view can be dismissed as easily as Lewis's comment suggests. Just what is the basis of his dismissal, anyway? It appears to rest on an appeal to the phenomenological data: Mellor conceives being green as a relation between something and a time. It is evident in experience and thought, Lewis seems to be saying, that green is not a relation at all.

Such appeals, as we have seen repeatedly, tend to have limited efficacy. A philosopher dug into a theory for dialectical reasons is unlikely to concede ground for phenomenological reasons. The phenomenological data in many areas are tenuous to begin with and where there are counterbalancing considerations they are even less likely to persuade. To Lewis's claim that green is obviously not a relation, Mellor may just respond that his experience is not nearly so unequivocal.

In fact, red is an instructive example in this context.[86] Although it manifests a non-relational appearance to perception, upon reflection, in order to make sense of our *judgments* about red, it seems a much more complicated, and perhaps relational property. Under what conditions is that apple red right now? Certainly not only if it gives off a reddish appearance right now. If it were dark, or I had sunglasses on, or I had certain illnesses, and was aware of some non-red color appearance, I would not hesitate to say it was red nonetheless. This seems to be because being red is not determined by something's having the reddish appearance alone, but by its capacity for presenting the reddish appearance in the right circumstances to observers. And therefore red seems to be a relational property after all, involving as it does both the thing and observers.

But although physical red – the property of the physical object – is not an especially obvious example of a non-relational property, it would be surprising indeed if *all* properties were relational. Concerning phenomenal red – the property of the image of the apple – it does seem phenomenologically apparent that it could not be a relational property. It does not seem that the image's being red requires any term other than the image.[87]

This argument is likely to have limited force. Someone already convinced of the view in question is sure to see the phenomenological evidence differently. But the same dilemma can be raised here as I raised about the adverbial theory. Suppose the apple is green at t1 but red at t2. Now, one may ask whether, at t2, the apple is green. If it is, this implies, counterintuitively, that green must be exemplified at t2. Surely it is possible that green not be exemplified at t2. Put in the language of the theory, it is possible that nothing has the green at relation at t2.

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[86] Ditto for Lewis's shape example.

[87] Objecting to the view, Hawley wonders: "Does the banana have its shape regardless of the existence or non-existence of times?" (2001, p. 17) But this is the wrong question, for the banana's shape might not be a relation to a time, even if there must be times for the banana to have its shape.

And there is independent reason to think that since nothing bears green-at to t1 at t2 neither can the apple. If something bears green-at to t1 at t2 then it would seem that t1 is involved in a fact at t2. But t1 can't be involved in any fact that is at t2. So if the apple cannot bear green-at to t1 at t2, the apple must have a different color at t2 than it does at t1. But evidently an apple may retain its color from one time to another.

Concerning this view, Hawley (2001, p. 19) raises the interesting question what "determines" that the apple have the red at relation to some certain time, as opposed to any other. The question is obviously not what *causes* the apple to have the relation, or what lawfully explains that fact, but what ontologically explains it. She considers two alternatives: that these relations supervene on the intrinsic properties of the relata, or that they are non-supervenient, e.g., external, relations. It seems to me that the latter is the far more charitable account.

These views about the correct analysis of judgments or facts of the form x is F at t, where x is some physical object, depend in the end on one's view about the nature of times. These views on which things are not just F but F-at-t seem to owe some of their intuitive appeal to substantivalism. Specifically, they owe their appeal to substantivalism's claim that times are necessary to time. A natural corollary to this is the idea that to exist in time essentially involves being connected to a time. If all this were true it would be natural to suppose that something could not be merely red - it must really be red at some t.

As I have suggested, I believe these views are false. I don't believe that times are necessary. And even where there are times, the connection between a certain state of affairs and the time-state of affairs to which it bears the being at relation is wholly extrinsic. There is the apple. There is its exemplification of the color red. There is its being at a certain, say t, time. This fact I have analyzed as the apple's being red's being simultaneous with a certain t state of affairs. There is, to be sure, the relational property: being red while t. But as with our understanding of the relational property being red

three feet from Bob, it is important to understand the property in terms of its more fundamental constituents. I understand that it is not in fact easy to develop such an analysis in detail, but this route seems significantly more promising than the temporalisers'.

"At t" as Operator

Since the right logic for temporal predication may provide a clue to the right ontology, we begin our investigation of the final view with a consideration of its account of the former. On this view, the primitive sentences describing the connection between the exemplification of properties by things and times does not involve times as predicates but as *operators*. LePoidevin (1991) puts the idea as follows. There is an initial inconsistency in the fact that some thing a may be both F and G, where F and G are incompatible – first F then G.[88] How then to paraphrase the situation so that there is no paradox? He suggests this be done by the "inclusion of tenseless temporal operators with quantifiers ranging over times" (*ibid.*, p. 67), as follows:

 (1) Ǝt1 Ǝt2 At t1 (Fa) & At t2 (Ga) & ~(t1 = t2).

"Fa" and "Ga," I take it, do not have truth values on this scheme. They may or may not be significant apart from these temporal operators.

I have some questions and criticisms in connection with this account. It seems to me at least misleading to say that these temporal operators are "tenseless." The operator in itself is neither tensed nor tenseless. What is tenseless is the semantic unit on which it operates: "Fa," e.g. Someone like Prior could employ the operator "At t" but make its scope include only tensed sentences. In its capacity as temporal operator it would not differ from LePoidevin's.

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[88] This is supposed to arise because the apple is both green and red – for example, it is green and then it is red. The trouble only arises if we reject tense, which LePoidevin does.

Second, I don't see how one can quantify into an operator expression. "At t" is an operator. There is the controversy about whether it is proper to quantify into modal contexts. But "Эt" quantifies not into the scope of "At t" but into "At t" itself. It is as if one were to say: there is some possibly such that necessarily, possibly P.[89]

Logic aside, how is one to understand the metaphysical implications of the view? Does the view entail that the world must embody contradictions in order to reflect the claims of language? Mark Johnston criticizes the view by remarking that only one of "At t1 (Fa)" and "At t2 (Ga)" should turn out true, otherwise the problem of *prima facie* incompatible claims both being true just recurs. Thus Johnston: "Compare saying that Jones is crooked according to the *Times* and honest according to the *News* and that both papers correctly represent the concrete facts of the matter" (1987, p. 114). True, the *Times* and *News* couldn't both be right. But the right analogy with this temporal scheme is not this, but that both of *my statements* – the Jones-*Times* and Jones-*News* - correctly represent reality. And there is nothing inconceivable about that.

Although LePoidevin is initially more impressed with Johnston's criticism, he replies that: "What the [temporal] operators do, surely, is to select different time-slices of reality of which it is true, respectively, that 'Fa' and 'Ga'" (1991, p. 68). This imports the different worlds understanding of modal logic so popular in interpretations of the language of possibility and necessity. As saying that it is possibly raining takes us to the possible world where it is raining, so saying it is raining at t1 takes us to the t1 (part of the) world.

Note that this is but one interpretation of what a modal operator, or indeed any operator at all, does. "Not" operates on semantic units also but few think the appropriate interpretation of its semantic content involves taking us to the negation world where what is inside its scope is going on.

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[89] Thanks to Greg Landini for confirming my suspicion.

In trying to understand "At t (Fa)" it would be useful to know to what "a" refers. LePoidevin argues that it may pick out either the four-dimensional whole of a or just its t-part. He ends up arguing that "a" in a temporal operator context always refers to some temporal part of the whole object. Which part it refers to is determined by which t is a constituent of the operator. The reference of "a" is therefore determined by context.

In this way again the theory is like Lewis's account of possibility (1979). If I say the book is blue, I am talking about one book; if I say the book is possibly blue, I am talking about another book – the first's counterpart.

Now, if in "At t (Fa)," "a" refers to the t-part of the four-dimensional whole, why not simply introduce a term to designate the same entity? One might then name that t_1-part of a, "a_1," the t_2 one "a_2," and so on. It seems to me this language would accomplish much the same as LePoidevin's "At t (Fa)." To be sure, the proposed language is more cumbersome, insofar as it requires a long list of primitive terms, but the semantics of the two seem to come to the same thing. And indeed this suggests that the idea that "At t" is an operator, as developed by LePoidevin, is quite empty.

Finally, suppose "Fa_1" is understood as tenseless. And suppose "a_1" to refer to some specific temporal part of a temporally extended object, as suggested in the previous paragraph. If these suppositions are made, "Fa_1" by itself has a truth-value. And there is no conflict between "Fa_1" and "Ga_2," even where "F" and "G" denote incompatible properties. Since a_1 and a_2 are diverse, there couldn't be a problem with the fact that they exemplify incompatible properties. This removes any need to make reference to times either as elements of an operator, or as a term at one end of the at relation.

CHAPTER 4

TRANSIENCE AND UNIVERSALS

A-Facts and B-Facts

In addition to precedence connections and times, time seems to involve the "properties"[90] of being present, past, future, being twenty minutes ago, being thirty hours from now, being more past than, being more future than, and so forth. These properties seem to involve transience in a way that the former properties do not. Whether something is now depends on when now is. Whether something is before another thing does not seem to depend on when now is. Following the tradition I will call the transitory facts "A-facts," and the other facts "B-Facts." I will call a B-theory one that reduces the property of being present and its kin to some other non-transient temporal and non-temporal facts. Smart, for example, identifies being present on the occasion of the utterance of a certain sentence token with being simultaneous with the utterance of that token (1963). These theories may also usefully be thought of as "tenseless" theories. Tense is an obvious feature of our language. Arguably, it is an obvious feature of the way properties are exemplified. It makes a difference whether something is or merely was red. In some cases, however, it appears that tense does not make a difference, as for example, in the fact that three *is* prime. According to tenseless theorists, or, equivalently, B-theorists, tense is to be eliminated in favor of tenselessness.

A theory on which being present is to be understood in terms of simultaneity with a time is also a B-theory, since it reduces being present to other temporal facts. An A-theory is one that does not reduce being present to any complex of other properties. Thus Smith's view (1993), on which being present is an irreducible property exemplified in all states of affairs, counts as an A-theory. Prior's view (2003 and elsewhere), on which

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[90] More on the quotation marks below.

being present is not a property of any sort, but on which it is still true that only present things exist, counts as an A-theory also.

The question to be addressed in this chapter is whether universals exemplify A-properties. The matter may be made pressing by considering an objection to combining *in re* realism with the view that properties do have such properties. Suppose M is present and N is past. It seems to follow that M is not N. Suppose F is a feature of both M and N. If F is a feature of something with an A-property it follows, one might argue, that F must have that A-property. But then, since being present and past are incompatible, F cannot qualify both M and N.

If A-properties can be identified with complexes made up out of other properties, then the A-objection (just sketched) is but a version of the B-one. M's being present, suppose, is M's being simultaneous with this act of awareness. N's being past is N's preceding this act. So N must precede M. And so the apparent impossibility of past and present things exemplifying the same property reduces to the apparent impossibility of temporally distant things exemplifying the same property.

I do not believe that A-properties can be identified with B-characteristics. I cannot argue the point in detail, but here's a taste. All tenseless theories I know of identify the characteristic of being present had by a certain event E with E's being simultaneous with something. According to B-theorists, as noted, in addition to a tensed way of speaking, there is, or can be, another discourse which abstracts from tense. To say x (is) F, thus tenselessly, does not imply that that connection obtains now or in the past or the future, though it leaves open the possibility that the connection is temporal. They suggest that this is somewhat the way that we say that water (is) H_2O.

On Smart's view, for example, E's being present is supposed to be identical with its (being) simultaneous with the use of a certain sentence token. But since sentence

tokens are only significant in virtue of their connection to conscious states,[91] it is the conscious state – C – that must do the real work even on this view. Presumably, B-theorists would not maintain that being present was exemplified in a world in which there were sentence tokens but no conscious states.[92] But it is obvious that E could exist though C did not. And it is equally obvious (to me, at least) that E could be present if C didn't exist. Therefore, E's presentness has nothing essential to do with C.

I have spoken and will continue to speak of the *properties* of being present, past and future. Such talk is perfectly acceptable for B-theorists. For the B-theory just adumbrated the property of being present is an impure relational property involving simultaneity and certain sentence tokens. Many A-theorists, however – among them Broad (1933), Lowe (1998), and Prior (1993) – believe it is a grievous mistake to try to understand the transience of time in terms of the having of properties. Something's happening now is different from its having happened, they concede, but the difference is not to be understood in terms of the exemplification of some mysterious properties of presentness or pastness.

Typically, my discussion would not be much affected by replacing talk of the "properties" of presentness *et al* with talk about "truths" concerning what things are happening or have happened. For example, momentarily, I will consider in some detail whether the fact that something has one A-property is incompatible with its having some other A-property. This is equivalent to the question whether it is possible for something to be both present and past (or present and future, etc.).

Finally, there is a debate among A-theorists concerning what things may be said to exist. According to presentists, only present things exist. Intuitively construed, this

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[91] I realize this is a mouthful.

[92] Perhaps they would maintain that there are no sentence tokens in worlds without conscious states. This would come to the same – there would be no present in a world without conscious states. On some views, this connection with consciousness is explicit: see Grunbaum (1968, p. 333).

entails the existence of my right big toe but not of Caesar. According to Smith's maximalism (2002), present, past and future things all exist in some sense, though not to the same degree. The Roman Empire and Martian colonies exist on this view, though maybe not to the same extent that Alabama does. And there are advocates of the growing block theory, such as Tooley (1997) and Broad (1923), who maintain that something comes into existence only when it becomes present, but then goes on existing into perpetuity in the past. This debate also will go entirely untouched in my discussion. What is required by my discussion is that it be possible for two things, one past and the other present to be the same. Naturally, different accounts of this phenomenon can be given, but to deny it is out of the question.

The A-Objection to *In Re* Realism

I now return in more detail to the A-objection.

(1) Suppose M is present and N is past.

(2) Suppose M and N are F.[93]

(3) Necessarily, for all x and y, if x and y have distinct A-properties then x and y are distinct. [Suggested principle.]

(4) Necessarily, if x has (a non-A-property) F then F is a qualitative constituent of x. [Suggested principle.]

(5) Necessarily, if x has an A-property P, then all its qualitative constituents have P. [Suggesed principle.]

(6) Therefore, F is present and past. [From (1)-(5)]

(7) Therefore, F is not F. [From (3) and (6)]

I begin by examining (3), a principle first championed, to my knowledge, by McTaggart (1993). McTaggart believes that time is possible only if there is change. And change, for McTaggart, is only possible if there are A-properties. Something can change

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[93] That is, M *has* a property N *had*.

from being hot at one time to being cool at another only if facts can change from being future to being present, for example.[94]

Some of the appeal of (3) is due to the spatial conception of time, to which I have alluded on several occasions. According to this conception, the temporal character of things is to be understood on the model of their spatial character. Things in the past, therefore, are far away from those in the present and future in something like the way things across the room are from my body. In the same way that something across the room from my body cannot be my body, so something across the A-temporal dimension from my present activities cannot be those activities.

One objection to (3) hinges on the alleged fact that, inevitably, anything that has one A-property eventually acquires the other two. My birth, for example, was once present. It is now past. It seems, therefore, that a single thing, my birth, has both the property of being present and the property of being past.

In response to this complaint it might seem tempting to amend (3) as follows:

(3') Necessarily, if x and y have different A-characteristics at the same time, then x and y are distinct.

The problem with (3), according to this line of thinking, is that it fails to note that an event has an A-characteristic only *at a time*. And it only has one at each time. Each event does have every A-characteristic but only as it goes from one time to the next. This might be thought to avoid the difficulties raised by McTaggart.

But I think this move would be a mistake, for two reasons. First, it is simply not the case that every event has every A-property. The language I speak is tensed; so also

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[94] McTaggart is in fact not very clear on this point. He may have believed that alterations of temperature wouldn't be change even if there were A-properties: "If my poker, for example, is hot on a particular Monday, and never before or since, the event of the poker being hot does not change. But the poker changes, because there is a time when this event is happening to it, and a time when it is not happening to it. *But this makes no change in the qualities of the poker.* It is always a quality of the poker that it is one which is hot on that particular Monday. And it is always a quality of the poker that it is one which is not hot at any other time" (1993, p. 28; my emphasis).

therefore is the language of this dissertation. If every event has every A-property, this must be so *now*.[95] But obviously my birth does not have every A-property. It is not present, for example. It *had* the property of being present, perhaps, but this by itself has no tendency to undermine (3).

Second, (3') suggests some intimate connection between the exemplification of A-properties and being at a time. Although it is plausible to suppose that the entities that have A-properties are also at times, times being what they are, this is not a fundamental fact about A-exemplification. The fundamental temporal relation is preceding. Being at a time emerges only at a derivative level.

Are there any other counterexamples to (3)? Among the things that are capable of having A-properties, apparently, are states of affairs. This pen's being warm, for example, may be present. But if the pen has been warm for a while, its being warm is also past. A single thing – this pen's being warm – appears to be both present and past. Colloquially put, the pen is warm and it was warm.[96]

In reporting this fact some confusion may arise. If I assert that this pen was warm, you may infer that it is not now warm. It might seem, then, that the pen's being warm in the past is incompatible with its being warm in the present. But your inference would be tenuous at best. It is a conversational implication of some contexts in which I assert of this pen that it was warm that it is not warm now. But it is no part of the meaning of the assertion that the two are incompatible. That this is so may be seen by considering those cases in which it may be reported that the pen was warm, and then to no one's great surprise that it is still warm.

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[95] Some have even argued that something's having some property now is no more than its having the property: See Chisholm (1990, p. 414) and Prior (1998, p. 81).

[96] Here is another example: Take my birth again. It is past. There is now, that is, the state of affairs of my birth's being past. My birth's being past, therefore, is present. Several years ago, my birth was already past. My birth's being past, therefore, is also past. Apparently, my birth's being past can be both past and present.

What relationship there is between the fact that the pen was warm and the fact that it is warm depends on what relationship there is between the "two" pens: the past one and the present one. Things evidently persist through time. The pen in my hand is the pen that was on the desk ten minutes ago. Philosophers disagree about what it is for the pen to so persist.[97] One camp of philosophers – the endurantists – believes that an object persists by being wholly present throughout its existence (Van Inwagen 2001 and Wiggins 2001, for example). This pen, on this view, is identical to the pen ten minutes ago. Sameness through time according to the other – the perdurantist – camp, involves distinct parts of a whole item existing at different times. Quine's (1960) previously-mentioned view that physical objects have diverse temporal parts is of this sort. The pen ten minutes ago, for example, resembles greatly the pen now. But the pen ten minutes ago is as distinct from the pen now as the pen now on the desk and the one on the floor.

In order for the two facts – that the pen was warm and that it is warm – to be the same the pen must be the same from one time to the next. But the pen is not the same over time if perdurantism is true. So, it appears that the counterexample to (3) presupposes an endurantist conception of persistence. Let me explain. There are two cases of the state of affairs involving the pen's being warm, a past and a present one: call the past one 'N', and the present one 'M'. If M and N are identical they must at least have the same constituents. That is, the pen that partly makes up M must be the very pen that partly makes up N. But if perdurantists are right, the M pen cannot be strictly identical with the N pen.

I believe the endurantist account of persistence is correct, so thus presupposing it is no problem for me. But I can pause only briefly to defend the view against one of the more common objections directed against it. Lewis (1986, p. 206), for example, claims

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[97] This way of laying out the issue as well as the terminology is due to Mark Johnston via David Lewis (1986, p. 186).

that if an object x is identically present at two times T1 and T2, then it is possible for it to have a property at the one time that it lacks at the other.[98] Call this property F. X would then be, he says, both F and not F – a contradiction.

But there is no contradiction. If a rich man was poor, it doesn't follow that he *is* both rich and poor. It is perfectly possible that he is rich but *was* poor; that he *was* rich and (elsewhen in the past) *was* poor; that he is rich and will be poor; and that he will be rich and (elsewhen in the future) will be poor. Avoiding the contradiction requires no more sophisticated an ability than remembering tense.[99] It does not require, specifically, relativising the exemplification of properties to times.

In a similar vein, it might be argued that the pen cannot be strictly identical through time because it is liable to lose or gain parts. The pen now cannot be the pen earlier because the pen now and the pen before don't have the same atoms.

But it *is* possible for something to have parts it lacked or lack parts it had. The fact that Max Cleland had a limb he doesn't now is no reason to think he is not what he was. It is evidence that he has changed, but then no reason has been presented to suppose change is incompatible with identity.

It is possible, then, for the pen that partly constitutes M to be the very pen that partly constitutes N. Since it is possible for the warmth that partly constitutes M to be the warmth that partly constitutes N, it seems possible for M to be N.[100]

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[98] This objection may be found in various places: Broad 1923, Armstrong 1980, Heller 1990, pp. 2-4. Bergmann puts the objection in his typically pithy way: "If 'it' has moved then it is no longer 'it'" (1959, p. 240).

[99] Of this reply, Lewis writes: "This is a solution that rejects endurance; because it rejects persistence altogether. . . . In saying that there are no other times [because they are past or future], as opposed to false representations thereof, it goes against what we all believe. No man, unless it be at the moment of his execution, believes that he has no future; still less does anyone believe that he has no past" (*ibid*.). But note Lewis's tendentious detensing. We all believe, not that there *is* a 1984, but that there *was* one.

[100] As Smith (1993) rightly insists in the case of propositions, for them to be identical it is not enough that two such entities have all constituents in common. They must also have them in the same order. Mary's loving Paul is not the same state of affairs as Paul's loving Mary, since loving is an non-symmetric relation. But M and N's constituents evidently have the same order.

If the pen's being warm is both past and present then it is an enduring state of affairs. Typically a state of affairs persists by having mutually diverse proper parts. A basketball game has two halves. If the pen's being warm is to be past and present without being diverse it cannot be so by having diverse proper parts. Could there be states of affairs that endure in this way?

Chisholm maintains that it is not possible for a state of affairs to endure in this way. Calling states of affairs "states," he writes: "An enduring state of a contingent thing is a state that is a *temporal* whole – a whole having as parts states that have incompatible contents and that are related by *before* and *after*. Such a whole, therefore, involves change" (1996, p. 75). The content of a state is the property exemplified in it. The content of my being seated is thus being seated. So what guarantees that in each enduring state there are proper parts with diverse contents? It is the fact that contingent things must change: "If *me* [sic] *being seated* is an enduring state, then because I am a changing thing, there is a present state *me being seated and F* and a past state *me being seated and non-F*. Both of these states are parts of *me being seated*" (*ibid.*, p. 76).

My being seated is made up of my being seated and F, my being seated and G, and so forth. But my being seated and F *involves* my being seated. So what, if anything, guarantees that the state that is my being stated (and F) is not the state that is my being seated (and G)? Even though my being seated and F, and my being seated and G are different they may involve identical elements – i.e., my being seated. Chisholm believes they cannot be the same because he thinks I (the substrate of the state) am not identically present in each of these states. But, as suggested earlier, when I survive a change it is *I* who survives, not an ontological stand-in.

Lowe chimes in against the possibility that something is both past and present: "[I]n the case of an event *e* of some duration, presentness *may* in fact be predicated non-contradictorily of *e* in, say, both the present tense and the past tense, though only in virtue of *e*'s having as parts two sub-events, *e'* and *e''*, such that presentness can only be

predicated of *e'* in the present tense and can only be predicated of *e''* in the past tense"
(1998, p. 47). *e* may be present. If *e* has some duration, then it may be that *e* was present
(presentness is predicable of it in the past tense). If so, then *e* is past. Since the very
entity *e* cannot be both present and past, it must be made up of diverse stages. But again:
why? What guarantees that when *e* has some duration it is made up of proper temporal
parts?

Here is one argument (also in Tooley 1999, p. 32). If N is past, then N preceded
whatever is present. Since M is present, N preceded M. Because precedence is
irreflexive, N cannot be M.

The obvious rejoinder is that M's being past is compatible with N's not preceding
M, even though M is present. But it is difficult to hold this view as a matter of principle.
There are some cases in which it is fairly clear that N must precede M. Consider that the
pen may be warm, then not, and then be warm again. The pen's being warm is then
intermittent. How could it be that the past "case" of the pen's being warm does not
precede the present one? Something may in fact be later than the pen's being warm,
which preceded the pen's being warm.

It may be suggested there really are two states of affairs here. This could be held
because the pen's being warm involves not just the pen and warmth (and perhaps the
exemplification tie) but also a *time*. The pen's being warm is not diverse from the pen's
being warm. But the pen's being warm *at t* is diverse from the pen's being warm *at t'*.[101]

But, as I insisted in connection with Kim's account of events, the time at which
some state of affairs occurs is no part of its nature. States of affairs such as the one in
question do typically occur at some time. But the time at which they occur is no part of
their nature. The temporal situation with respect to location in this case is exactly

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[101] This line has been urged by Fumerton in discussion.

analogous to the spatial one. The pen must be at some spatial location or other. But it is no part of the nature of the pen that it be at (say) that particular location.

It does appear to follow that if M is present and N past, then they must be distinct. This follows because N must precede M, and precedence is irreflexive. But there is still the puzzle of what could individuate M and N, since they appear to have all the same constituents. There are two possible, ultimately compatible, explanations for this. The first explanation goes as follows. It has been maintained by some that x and y may differ even though they have all pure properties in common. If they do, they differ brutely, in virtue of (call it) their haecceities. I have admitted states of affairs as a primitive ontological category. I have maintained that although states of affairs are made up of (in some cases) substances and properties, they are neither substances nor properties. Because of their irreducibility, two states of affairs may differ in a brute way. The (past) pen's being warm may differ from the (present) pen's being warm because they have different haecceities, even though they have all the same elements.[102]

Second: one may begin by noticing an assumption I have made about how states of affairs exemplify A-properties. I have maintained that when I say that the pen's being warm is present, the "is" is tensed.[103] But what of "being" in "the pen's being warm"? Is the exemplification which unites the pen with its warmth tensed or not?[104] I have implicitly assumed it is not. If the tie is itself tensed then the pen may be warm, or it may have been warm, or it may be going to be warm. The warmth is the same, as is the pen, but the tie varies. If A-temporal states of affairs are to be assayed this way then there is no problem with saying that the various (on this view so-called) A-properties are incompatible.

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[102] Zimmerman (1997).

[103] More importantly, the same is true for the ontological correlate of the linguistic expression.

[104] See Tooley (1999, p. 25).

Let me close this discussion of (3) with some consideration of some problems with the first solution. One consequence of this line is a rejection of Bergmann's above-mentioned (p. 55) principle (1967) that if two entities (non-things[105]) have the same assay they must be the same. I'm inclined to think this difference is due to my acceptance of states of affairs as an ultimate category.

Another difficulty with this solution is that if it is right then in some cases there is no way to tell when this and that state of affairs are one or two. One can, I believe, discriminatively isolate the substance that is a constituent of a certain state of affairs; so also, the property or properties. But, it appears, it is not possible to discriminatively isolate the haecceity which suffices to distinguish one state of affairs from another. In cases such as that involving M and N, even though they are diverse, there is nothing about them that can be discriminatively isolated which accounts for their difference. Indeed this must be so since there is no "thing" which accounts for their difference.

It might be replied that this is no problem, since the same follows for the more popular view that substances are different in a brute, fundamental way. It may happen that two substances differ even though they have all (monadic) properties in common. In such cases, it appears, there is no aspect of either entity one could attend to to discern that they are different. This is because there is no such aspect. If one is willing to accept such brute difference in substances, why not similarly in states of affairs?[106]

<u>Must Properties of Present Facts be Present?</u>

(3) now established, consider

(5) Necessarily, if x has an A-property P, then all its qualitative constituents have P,

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[105] A bare particular in Bergmann's terminology is a thing, as is a simple universal. A bare particular's exemplifying a property is one kind of fact.

[106] The same line of reasoning applies to properties.

from the argument above. Say the pen is warm, and the bottle was warm. Warmth is a qualitative constituent of both states. If (5) is true, warmth must be both present and past. But as we have seen, this is impossible.

Is there reason to believe (5)? Smith offers the following argument for the related view that substantive constituents of A-characterized things must be A-characterized. One might hope that if successful the argument could be extended to qualitative constituents.

> [I]f we assume that [Bucephalus' having the property of crossing-the-Meander] is past, we can deduce from this that a certain substance, namely, Bucephalus, is also past. The facts that (i) Bucephalus is not present or future and (ii) his exemplification of crossing-the-Meander is now past jointly entail that (iii) Bucephalus is now past. It is an implicit contradiction to assert that Bucephalus is neither past, present, nor future but that his crossing the Meander is past; for this would mean either (a) Bucephalus exists timelessly and yet a few centuries ago crossed the Meander or (b) Bucephalis never exists and yet once crossed the Meander. (1993, p. 163)

The main argument that Bucephalus must be past comes following the phrase "[i]t is an implicit contradiction. . ."

The following is, I believe, an adequate paraphrase of his argument. Suppose a substance x's being F is past. X either (a) is one of past, present, or future, (b) is timeless, or (c) never exists. (c) may be ruled out: since x was F, x must have existed. (b) may be ruled out because x exemplified some property some time ago. Therefore, (a). Smith goes on to argue that x, specifically, is past, since it is not present or future. But this is inessential for our purposes. What matters is that it is supposed to follow from the fact that x's being F has an A-characteristic that x has some such characteristic. Nothing in the argument hinges on the state of affairs' being past rather than present or future.

Before considering its merits, I adapt the argument to the case of properties. Suppose F's being exemplified by x is past. F either (a*) is one of past, present, or future, (b*) is timeless, or (c*) never exists. F was exemplified; therefore it must have existed – so (c*) is out. Since F was exemplified some time ago, it cannot be timeless;

which leaves (a*). Again it does not matter which A-characteristic F has (had) so long as it is supposed to fallow that it has at least one.

I have admitted such states of affairs as x's being F. As stated, the argument requires that there also be such states of affairs as F's being exemplified by x. I'm inclined to think F's being exemplified by x is nothing more than x's being F, but I will not argue the point here. A slightly amended version of the argument does not require that these entities be diverse. The alternatives (a*)-(c*) above apply whether there is the state of affairs F's being exemplified by x or not. That is, if there is F then either it is (a*) past, present or future, (b*) timeless, or (c*) it never exists. And whether there is the corresponding state of affairs or not, F *was* exemplified by x. This seems incompatible with both (b*) and (c*). And it therefore seems to follow that F is either past, present, or future.

Both versions of the argument notwithstanding, something may exist and be neither past, present or future. Not to be misunderstood, I repeat that "exist" is used here with tense. Something may exist *now* without being present; it may have exist*ed* without being past; and it may be *going* to exist without being future. Smith's (a) – "Bucephalus exists timelessly and yet a few centuries ago crossed the Meander" – is not an "implicit contradiction." Bucephalus is timeless, in that he is neither present, past, nor future; but he may still have crossed the Meander several centuries ago. The same, *mutatis mutandis*, is true of the property F.

The bulk of the response hinges on demonstrating the coherence of the proposition that x (F) may be timeless even though it exemplifies (is exemplified by) something. I shall postpone this demonstration for the moment, so that I can consider all the various phenomena relating to A-temporal existence together.

Before closing this section, though, it is worth investigating an alternative response to Smith's argument. Craig is a presentist (2003): according to him everything that exists in time is present. One of the challenges this view faces is to explain what

makes it true, for example, that Hegel was alive. Since Hegel is not present and Hegel would seem to be involved in the making true of the assertion, there seems to be a lacuna in the presentist's ontological framework.

According to Craig, the fact which corresponds to the relevant proposition is *Hegel's having been alive*, which presently obtains. But doesn't it follow from the fact that *Hegel's having been alive* obtains that Hegel obtains, or, better put, exists? Craig says no: states of affairs are to be "holistically" conceived. It would be "inappropriate" to impute to states of affairs "any sense of composition other than being composed of less maximal states of affairs" (2003, p. 399). This holistic conception of states of affairs allows Craig to maintain that although *Hegel's having been alive* presently obtains – is part of the present world somehow – Hegel does not, he is in no way part of the present world.

Craig evidently intends this conception to be applied to past, present, and future states of affairs since he attributes it to states of affairs as such. This alternative is not available given the doctrines advocated in this dissertation. The arguments directed against *in re* realism have repeatedly appealed to the fact that states of affairs have elements. I have not questioned this principle. I have merely questioned whether one can transfer the properties of states of affairs to their elements.

Numbers and Time

In re realism is in equal trouble if, though (5) be false, it can be shown on independent grounds that properties have A-characteristics. If a property F is capable of exemplifying A-properties, surely it is capable of exemplifying more than one. Together with the incompatibility of A-properties, this entails that F is not F.

The main reason for thinking that red, say, is present is that there are red things. One may similarly argue that because there were and will be red things red is past and future.

I believe all that relevantly follows from the fact there are red things is that red *exists*. In discussing B-relations, I argued that a certain apple's existing on Tuesday is compatible with its not being on Tuesday. Similarly, the fact that red exists now does not entail that it is now. In other words, although red exists now, it is not present. The same is true of the past and the future.

If the tensed tie view described above is correct then evidently properties can't be present. Say being present is the present tense exemplification tie which connects things into some states of affairs. If properties were present *simpliciter* there would be nothing for them to have the present-tense tie to. A parallel argument precludes the possibility of physical objects' having A-characteristics.

In Chapter 2, I argued, analogously, that properties and physical objects do not enter into precedence relations. Because of this they are B-atemporal. But, because they are constituents of states of affairs which do stand in such relations, they are derivatively temporal. Similarly, physical objects and properties, although not themselves present or past, are derivatively present and past because they are constituents of the things which are. They are therefore A-atemporal.

There is an objection which, if successful, threatens both my contention that properties are B-atemporal and that they are A-atemporal. Numbers, it seems plausible to suppose, are not in time. They do not stand in precedence relations and are not present. Does this mean that they are atemporal in just the way that properties and physical objects are? It seems not: surely physical objects at least are more tightly wedded to the temporal world than numbers. Indeed it seems possible that numbers could survive the absence of the whole temporal world. This however is not true of either properties or physical objects. Properties must be exemplified by things to form states of affairs. And physical objects must exemplify properties to form states of affairs. Some of the states of affairs so formed must be temporal.

A full answer to this objection could only come with a thorough treatment of the nature of numbers (propositions, *et al*) which I am unable to offer here. But the sense that there is a difference between the connection between physical objects and time on one hand and numbers and time on the other may be accommodated already by the fact just pointed out. Although physical objects could not exist apart from the existence of temporal entities, it appears that numbers could. It seems there must be states of affairs if there are numbers – three's being prime, for example. But it does not seem that any of these states of affairs need stand in temporal relations.

If a physical object exists, it must exemplify not only necessary but contingent features. It must have some specific extension, not just extension in general. If one could plausibly argue that the object must change such contingent features then it would follow that a physical object could not exist timelessly. But I cannot see why it is necessary that a physical object change its contingent features. It seems to me that although a physical object exemplifies some property contingently, it may exemplify the same one throughout its career.

It is possible for something to timelessly exemplify a property – as when three is prime. But there are certain sorts of things which cannot exemplify properties timelessly – as, for example, physical objects. If a physical object exemplifies a property it can only do so tensedly and therefore temporally. What accounts for this difference between physical objects and numbers? One promising suggestion is that although physical objects are contingent, numbers are necessary.

It is tempting to argue that physical objects and properties, but not numbers are derivatively temporal. This would constitute another difference between numbers on one side and physical objects and properties on the other. Here is a case where a thorough account of the ontological status of numbers would be most beneficial. According to Grossmann, for example, numbers are constituents of states of affairs just as much as properties are (1983). The number three is a constituent of the state of affairs that is there

being three apples on the plate. If this account is right, then numbers are derivatively temporal. This is because there being three apples on the plate may precede there being two apples on the plate.

The Case for the A-Atemporality of Properties

If presentism is true, then so is (5) – namely, if something is present then so are all its qualitative constituents. Take a state of affairs such as this pen's being warm. It surely exists. If the presentist is right, this must be because it is present. But if the state of affairs exists then surely all its constituents do, too. Therefore, this pen and warmth must be present as well.

One reason (5) is false is that, although states of affairs may be present, properties are not present. My holding this view, however, may have the appearance of an *ad hoc* maneuver to parry an objection to realism. I will try to dispel this appearance by offering positive arguments for the view that properties are neither past, present nor future. Fortunately, the appearance of *ad hocness* may be further dispelled by the fact that (5) is disconfirmed by the existence of substances which fail to exemplify A-characteristics. Since this position disconfirms (5) in a more neutral way, I will consider it first.

Suppose, then, that something has some A-characteristic. I have suggested that states of affairs are the sorts of things that exemplify A-characteristics. So, for example, if

 (1) This pen is presently warm,

then this pen's being warm is present. But this cannot be the right understanding of (1), one might object, since it is at least uncommon to claim that

 (2) This pen's being warm is present.

Is the difference, if there is one, between (1) and (2) semantically significant?

I doubt it. A large part of the trouble with (2) is that "is present" is rarely used to mean "is temporally present." It is almost always used to mean "is spatially present." But I don't think this fact cuts any ontological ice – it is only a linguistic curiosity. After

all, there is no trouble with using "present" adverbially in the temporal sense. Nor is there any awkwardness in modifying (1) to say

  (3) The pen is warm now,

which surely says of this pen's being warm at least that it is present.

It would seem that states of affairs at least do manifest A-characteristics. There are various locutions that are noteworthily different, all of which deserve to be examined to see whether substances also exemplify A-characteristics. Consider:

  (4) The pen is present (past, future),[107]

  (5) The pen exists in the present,

  (6) The pen exists now,

  (7) The pen lies in the present,

  (8) The pen is now,

  (9) The pen is presently red,

and

  (10) The pen is now red.

If "is present" functions as a predicate ascribing the property of presentness to something, then one would expect locutions like (4) to be significant and on many occasions to express truths. But (4) is most naturally used to express the thought that the pen is spatially near. Suppose then that the context makes clear that one means to assert that the pen in question has the characteristic feature something has when it is not yet to come, or has already been, but that it is now. Could (4) be true then?

The temptation to think that (4) can be true rests on confusing it with (5) and (6). To say that something has presentness, that it is present, and to say that it exists in the present are fundamentally different. Not only is the fact that something is present distinct from the fact that something exists in the present, it is logically possible for something to

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[107] "Present" could similarly be replaced with "past" or "future," *mutatis mutandis*, in (5) and (7).

exist in the present without being present. In fact, in the same way that pens stand in succession relations in virtue of being constituents of states of affairs that do, so pens exist now or in the present in virtue of being constituents of states of affairs that *are* present.

Some support for this conception comes from Prior's (1993) contention that there is an intimate connection between something's happening and its being present. As Prior sees it, "the presentness of an event just *is* its happening, its occurring, as opposed to its merely having happened or being merely about to happen" (*ibid*., p. 3). It should be noted that Price explicitly speaks here of the presentness "of an event." This does not *entail* anything about whether substances have presentness and in what that might consist. But it would *suggest*, nonetheless, that if substances were to have presentness they should be expected to have it in the way that events do, namely, by happening. Since substances don't happen, they cannot have presentness.

What Prior says suggests that he would agree with the doctrine that states of affairs at least are present. Among events are such things as my falling out of a punt (*ibid*., p. 43). This is a paradigmatic example of what I have called a state of affairs. But he goes on to maintain that there is no "object called 'my falling out of a punt'" (*ibid*., p. 43). In the situation in question, there are no objects but "me and that punt." In fact, if he is right and my falling out of the punt involves only me and the punt, and my falling out of the punt may be past, then since I and the punt are substances, this doctrine would support the view that substances *do* exemplify A-characteristics.

Prior is concerned specifically with giving an account of the truth of

 (11) It is now six years since it was the case that I am falling out of a punt

and its kin. He maintains that this sentence is not about the event of my falling out of the punt – there is no such event. Rather, it is only about me and the punt. But (11) obviously can't only be about me and the punt in the sense that that is all that it asserts. That punt and I couldn't be what is asserted by (11) since I and the punt aren't something

that is asserted. Nor can that punt and I be what (11) is about in the sense that we suffice to make it true. This is the question what must exist in order for (11) to be true. I and the punt aren't what (11) is about in this sense either, since the two of us could exist even though (11) is false – if for example I never come near the punt. It should be noted, in Prior's defense, that he does not in this context pursue in any detail the suggestion that events are not what statements such as (11) are about.

In any case, it does seem there are cases in which A-characteristics are ascribed directly to substances. There is no problem, for example, with saying that the present leader of the Democratic Party is tall. This seems, like the assertion that the wily leader of the Democratic Party is tall, to attribute a certain characteristic – in the former case, presentness – to the leader of the Democratic Party.

In contexts such as this, "present" qualifies the acquisition or possession of some other property. In this case, it qualifies the possession of the property of being leader of the Democratic party. Insofar as it qualifies something's possessing some property, it is a feature of a state of affairs – the state of affairs of something's possessing that property – and not of the substance that is partly constitutive of it.

<div align="center">The Past</div>

Since some thing can be present, it seems reasonable to infer that some things could be past. But this talk of something's being past is anathema to some. If something is past, they argue, it is because it is no longer. Therefore, there can *be* no such entity that is past.[108] (The same is often said, *ceteris paribus*, about future so-called entities.) This puzzle arises only if one supposes that there are such entities – typically events – that have the alleged qualities of being present and past.

If this is right then of course (3) is false. If A and B have different A-characteristics they could not be identical. Only present things, on this view, exist. If A

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[108] See Prior (1993) and many of his followers.

and B have different A-characteristics at least one of them must not be present. And therefore the one that is not present does not exist. And finally two things cannot be identical if one of them does not exist. A non-existent thing isn't identical – it isn't anything. This line of argument has an even broader consequence: If only present things exist, then there is no problem about whether the qualities of things with different A-characteristics may be identical. Since nothing non-present exists, nothing non-present has qualities either. No qualities, no identity.

How could this move have even initial plausibility? It seems to deny the datum that something can be past. If something is non-existent in virtue of being past, and non-existent things have no properties, then, of course, it is not past either.

To be sure, the idea that there are A-characteristics is as anathema to these philosophers as the idea that there are bearers of them. There is nonetheless on their view the *fact* that my birth is past, and the truth that my birth is past.

One can of course deny that there are A-characteristics. The tense of a sentence, one may hold, is best understood as operating on the sentence as a whole, like the negation operator of modern propositional logic. But even if this is right it does not in the end provide a satisfying solution to the problem. What analysis is to be provided of the *fact* that my birth is past? What about the world makes my assertion that my birth is past true?

Craig's view (2003), recall, concedes that there are past states of affairs. There are such entities as the state of affairs *Hegel's having been alive*. Yet Craig believes this is consistent with the tenet of presentism according to which only present (temporal)[109] things exist. This is because, first, *Hegel's having been alive* presently obtains. And second, it does not supposedly follow from the present obtaining of *Hegel's having been alive* that Hegel exists. If he did this would seem to imply that something past exists.

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[109] Craig believes numbers are non-temporal and therefore not present.

At this point in the dialectic, if one does not want to follow Craig in conceding the existence of past states of affairs, one can allow that there are truths without truthmakers. There are reasons for thinking this is a dead end, though I don't want to pursue them here. One can on the other hand argue that there is such a fact as my birth's being past. It happens to be a present fact.[110] Here the problem recurs. There is then some fact that is A's being past as well as B's being present. Are A and B identical or not? And the problem about qualities recurs also. If there is something that constitutes A's being past, then there must also be something that constitutes A's having the qualities it does.

<div align="center">Primitive and Derivative Temporality, Part II</div>

How can it be that substances *are* not present when evidently, as is shown in

(5) The pen exists in the present,

(6) The pen exists now,

and

(7) The pen lies in the present,

a substance may *exist* in the present (now)?

As in Chapter 2, what is needed is a general account of what it is for something to exist in time. The crucial first step in understanding what it is to exist in time is to see the relationship between *being* temporal and *existing in* time. Something exists in time in virtue of its connection to that which *is* temporal. As something is colored in virtue of being red, or blue, or green, and so on, so something is temporal in virtue of having or standing in one of the properties or relations that are constitutive of time. These are being present, past, future, preceding, succeeding, being simultaneous with, and being at a time. Some of these are definable in terms of the others, as we have seen. Something is temporal if it has or stands in one of these properties or relations. Something exists in time if it is either temporal or a constituent of something temporal or a constituent of a

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[110] See Keller (2004).

constituent of something temporal or. . .   This view has the consequence that something may exist in time without being temporal.

It could be complained that there ought to be a biconditional connection between being temporal and existing in time. In other words, something exists in time if and only it *is* temporal. Against this I contend that it is evident that some entities lack immediate temporal character. For example, as I argued in Chapter 2, some entities cannot precede or be simultaneous with anything else. Among these are spatial substances such as tigers, trees and pens. Such entities, nonetheless, seem to make up an important part of the temporal world, of the world that has a temporal character. Tigers growl: their growling is evidently in time; it precedes things, it may be future or past. And the tigers that growl are an important element of the tigers' growling. There must be some way, therefore, of marking this distinction between things that have a temporal character immediately and those that are parts or constituents of said things. It is curious, to be sure, that some things that exist in time are not temporal. I would contend however that insofar as intuition speaks on the matter at all it speaks only of the taxonomy of entities that have temporal properties. It speaks of this only indirectly. There is more or less comfort in judging of this or that event or substances as preceding something or other, for example. The remainder of the question requires adjudicating esoteric philosophical questions that intuition leaves largely untouched. Therefore, to a certain extent, it is a matter for conceptual decision to determine under what conditions something exists in time.

Against this taxonomy of the temporal, Smith (1998) insists that (details aside) the fact that something x exemplifies a property at some time entails that it exists in time. He does not draw a distinction between something's existing in time and its being temporal. That is, if something meets the defining condition of existence in time, it *ipso facto* meets the defining condition for being temporal. On his view, nonetheless, something exists in time if and only if it stands in or exemplifies temporal relations or properties (1998, p. 162; 2002, p. 127).

If this biconditional connection really obtains, then neither substances nor properties exist in time, since neither bear n-adic temporal properties such as precedence or being present. Smith himself is insensitive to this problem, blithely asserting that "I am . . . simultaneous with" other entities (2002, p. 129).[111]

So something exists in time, in the primitive case, in virtue of its *being* temporal. And something *is* temporal in virtue of its having or standing in one of the properties and relations that are constitutive of time. But suppose

 (12) The leaf is green now.

Doesn't the proper understanding of what (12) asserts, and what would make it true if it were, entail that the leaf itself has a temporal character? Van Inwagen (2001), for example, in objecting to the view that substances persist through time by having (proper) temporal parts insists that "at t" is not to be understood as qualifying the subject "the leaf." It is instead an adverb modifying the predicate "is green." But if the qualification "at t" modifies the predicate and therefore the property, then surely the substance which exemplifies the property must have some temporal character in the immediate way I have privileged.[112] Being green at t, on this account, is really a single property the leaf has. It is therefore a temporal property. Since the leaf has it, it follows that the leaf has a temporal property.

Suppose then that "at t" modifies "is green." I have discussed this view already in connection with a treatment of the nature of times. The thought here is to extend this theory about the nature of being green at t to the nature of being green now. Being green now stands to being green as being green at t stands to being green. As on one version of this account green may be different by being green on Tuesday, Wednesday, and so on;

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[111] Smith (2002) agrees that something may be temporal in the sense of being a constituent of something that has an n-adic temporal property.

[112] See Le Poidevin (1991) for a detailed discussion of various alternatives for understanding "at t."

so something may now be green, or *have been* green, or *going to be* green. One way to develop this account of the relationship between properties and time is to hold that there are different determinates of a single determinable, being green.

This interpretation of (12) suggests that "now" there functions like "quickly" in

 (13) Paul is walking quickly,

where the latter is an adverb modifying the verb "is walking." But notice that the quality quickly does not itself apply Paul. Paul cannot be said to be quickly. If the quality of being at t is like the quality of being quickly, then it also cannot be said to characterize Paul.

But although Paul cannot be quickly, there is an intimate connection between Paul's walking quickly and his *quickness*. Specifically, if Paul is walking quickly, then (*ceteris paribus*) Paul is quick. Also, if Paul is speaking loudly then (*ceteris paribus*) Paul is loud. It seems to be a general principle that (P-A) if x is F Gly then x is (ceteris paribus) G.

Apparent counterexamples to this principle crumble under analysis. Paul's smiling broadly does not entail that Paul is broad. Nor does Paul's hitting to the opposite field entail that Paul is to the opposite field. Both cases show only that not all adverbs have corresponding adjectives for the specific sense required. This does not at all suggest that there is no quality someone has in virtue of which his smiles are broad. Paul could certainly have that quality. The same applies to the second case.

So the fact that Paul is walking *now* might, in the interests of perspicuity, be paraphrased to say Paul is walking now-ly. In other words, Paul is walking in a now-way. From this together with the thesis that anything that is a constituent of something with an A-property has that A-property, it may be concluded that (*ceteris paribus*) Paul is now.

If my conception of temporal existence and character is to be defended, the view that "now" denotes a way in which something exemplifies a property must be rejected. If

now is a way for something to be green then it follows that there are such qualities as being green now. If there are no such qualities then now does not modify the way something is green, for example.

Here is one argument against the view that there are such qualities as being green-now. Imagine a green apple. The color it had was green-now. The color it has is green-past. Since green-now is not green-past, it follows that the color of the apple has changed. Since this is absurd, one should reject the idea that green-now is a property.

Pastness comes in degrees – one thing can be more past than another. Another argument against the view hinges on this fact. If green-past is a property, then it follows that the apple changes its color continuously as it moves further and further into the past.

<p align="center">Substances and Being Present</p>

Having set aside the competitors, it is time to consider what I take to be the correct account of (12). It seems to me that (12) is equivalent to the much less misleading

(12') Now, the leaf is green.

(12) suggests strongly that "now" is a constitutive and determinative way in which something can be green. And therefore that it is a mode of the property. (12'), on the other hand, suggests that the leaf's being green is a single ontological unit, to which "now" applies as a whole. The entire state of affairs of the leaf's being green, on this view, has a certain temporal location. The same kind of translation changes

(13) The leaf is presently green

to

(13') Presently, the leaf is green.

This calls to mind Prior's analysis of tensed statements (1968 and elsewhere). On his view, as I noted a few pages hence, the tense of a sentence is best thought of as a non-truth functional operator. As one can modify the sentence 'John is walking' by negating it, so one can modify it by applying the past tense operation to it. 'John walked' thus

becomes 'It was the case that John is walking.' But to assert something in the present tense is simply to assert. Nothing would be gained, therefore, if one were to translate 'John is walking' by 'It is now the case that John is walking.' The embedded sentence is in any case present tensed.

It is worth noting, (not so) incidentally, that Prior's understanding of tense has the advantage that it makes uniquely clear the implausibility of claiming that substances can be, for example, past. To state that a substance is past in Prior's notation, one would need to say

(14) It was the case that Paul.

This is evident, after all, since if this view is right, the past tense is an operator introducing a sentential context. A singular term therefore could never stand alone in such a context.

But how could substances not be present (or future/past), one feels like saying? Just look at this leaf: one can see, or touch or feel it now. This is of course a sure way of determining that the leaf is *spatially* present, but it is no evidence at all that it is temporally so. The question what is present (now)? like the question what is red? admits of various interpretations. In asking the second, one may be interested in finding out what things are red – that is, what things have the color red. On the other hand, one may be interested in finding out what sort of thing redness is. Suppose we take the question about what is present in the former way. That is, we are trying to ascertain what things have the peculiar characteristic of being present. Giving examples of things that have the characteristic is, of course, an especially good way to discover what kinds of things are capable of having the characteristic.

Suppose we turn our attention first to the past. This seems like a good way to discover what is present, since what is past must have once been present. History discovers, among other things, important events. I have argued that events are really states of affairs. Our investigation of the past, therefore, is in the first instance concerned

with states of affairs. As our interest in the past may be put by asking what happened? so our interest in the present may be put by asking not what is now? but what is *happening* now? And clearly here we are concerned to find out what *events* are present.

But, this evidence notwithstanding, there do seem to be cases in which we are concerned with asserting of things other than states of affairs that they are present. For example, it is now Thursday. Thursday, it would seem, is present. But surely Thursday is not an *event* or a state of affairs. Thursday is not something that *happens*.

Thursday is a time. There are, as I've noted before, broadly two conceptions of times, the substantival and the relational. On the substantival view, times are substances that exist independently of the events that occur at them. On one version of the relational view, times are collections of simultaneous events. Thursday, for example, is the collection of all the events simultaneous with the ones going on now. On the other relational view, a time is itself a state of affairs. 1993 is the 1993rd revolution of the earth around the Sun.

Substances are things that have properties; they are not the havings of properties. Therefore, if the substantival view is correct, something other than a state of affairs may be present. Worse, a substance may be present.

But neither is a collection a state of affairs. So on either of the most prominent accounts of times something may be present which is not a state of affairs. But if this is right then my general argument seems fundamentally flawed. I claimed several paragraphs ago that to be interested in what is now is to be interested in what is *happening* now. But, since times aren't happenings, and we are concerned with whether various times are now, some things are now that aren't happenings. However, since, as I have argued, times are states of affairs the fact that times may be present presents no difficulty for my account of the nature of the entities which may be present.

Moreover, this objection would be more worrisome if times weren't such exceptional creatures in any case. If there were evidence that some ordinary substances –

say, my glasses – were present, this would seriously threaten my general argument. But substantival times, if there were any, would differ from all other substances in fundamental ways. The substances we have sensory awareness of are essentially so constituted that they must have properties at times, and therefore are essentially connected with it. Substantival times are more intimately connected with time. There could be no time, on the view, if there were no times at which things occurred. Indeed, times are constitutive of time, they are elements of it. It is not surprising, therefore, that times should have an A-temporal character which other substances are incapable of having.

Platonism and A-Time

I return now to the question whether properties have A-characteristics. If I am right that only states of affairs have A-characteristics, then it follows quite immediately that properties lack them. To see this more clearly, it will be useful to consider some positive arguments for the view that properties are A-atemporal.

Properties, on the conception I have assumed, are universals. Universals, philosophers such as Plato have claimed, are immutable. Nothing immutable is temporal. If properties had A-properties, they would be temporal. Red would be now present and past. Therefore, it might be claimed, properties are not temporal.

Some of the initial evidence suggests that properties do not change. Change involves the exemplification by some x of incompatible properties over time. Red doesn't and couldn't go from being a color to being a shape. So far so good. But what of such properties as being exemplified by this apple? Red, it would seem, may be such as to have now the property of being exemplified by this apple, but not have had it in the past.

If being exemplified by this apple is a property, there must be something about it that is capable of being shared by many entities. This apple cannot be shared by many entities. The universal character of being exemplified by this apple, therefore, must be

due to its involving exemplification. But I maintained in Chapter I (p. 35) that exemplification is not a property. If exemplifying some property were a property, I argued there, it would have to be exemplified. But then exemplifying exemplifying some property would be a property, and it too would have to be exemplified, and so on, yielding an infinite series of exemplifications.

Properties cannot have A-characteristics, another argument goes, because of the kind of epistemic access we have to them. Plato again is the *locus classicus* for this argument. I can *see* that the book on the desk has a green cover. The book and the desk surely belong among the temporal, being subjects of change. But it would be a mistake to suppose that the color of the book's cover similarly belongs among the temporal. Through a complicated process, after noticing that this book is green, and that leaf is green, and this leaf the same, and so on, I come to discern the color green itself. This entity, the view goes, is something apart from the book and this leaf and that leaf. Acquaintance with it reveals something outside the hurly-burly of temporal existence.

This is essentially a phenomenological argument. It concerns my experience of properties. The notion of experience should be broadly construed here. It includes not only what takes place when I examine the character of the book on the table, but what goes on when I reason about the color green. The plausibility of the argument depends on a certain conception of what is required for me to see that the book on the table has a certain characteristic. The view that properties are abstract, timeless entities has traditionally depended on the contention that I can look at the book until I am blue in the face but I cannot discover greenness from examining it alone. Greenness is something in which it participates. To discover it, I need (typically) to examine other green things. It should be noted, of course, that for Plato there is also the possibility of one's coming to be aware of the property existing alone.

In this conception the Platonist has a surprising ally. Although it is rare to find them discussing it, the classical nominalist view is also committed to this account of our

experience of properties. If resemblance nominalism is true, something has a property in virtue of its resemblance to a paradigm group of objects. To discern, therefore, whether the book before me has a certain property I would have to discover whether it resembles a certain group of objects in the appropriate way. I cannot therefore discover the qualitative character of the book by examining the book alone.

It is possible, I believe, to discern the greenness of this book through an examination of the book alone because I can see that that is what is going on now. Achieving this does require some discriminatory ability, but an ability that practically everyone has. In this respect the view advocated here is more akin to D. C. Williams's (1951) account of our awareness of properties. But what can be said in response to those – such as van Inwagen (2001) – who deny that there are such capacities? It is admittedly difficult to argue with someone who sincerely claims to report a contrary phenomenological finding after the most careful investigation he is capable of. Van Inwagen admits to seeing the book, and that it is green. He just claims not to be able to see the green.

Fortunately, one can appeal to more than just the bare phenomenological evidence. This conception of qualitative experience is enshrined in our way of thinking and speaking about properties. One can notice, evidently, the color of the book. One can be instructed to look at the shape of the pen. True, this does not settle the question of whether it is possible to do these things only in virtue of some previous experience of other items that have the property or not. Here the bare phenomenological evidence does help. I can see that I can notice the color of the book. I can also see that this experience does not involve essential reference to any other colored object. The experience has no objects other than the book and its color.

But perhaps the phenomenology is misleading. On one prominent account of the structure of the experience of qualities this apparent independence of the qualified object from everything else is just what one would expect. According to Hume (2000; see also

H. H. Price (1953)), thinking of some quality F involves having in mind an F individual along with other such individuals that are on the periphery of consciousness. Suppose I wanted you to find something red in the room. You would then, on Hume's account, have some thought of a red thing – presumably, an image – before your consciousness which would assist you in finding something red. But red being a determinable property, the thing found might not be the very shade of red of the object you had in mind. Therefore, there must be other red images on the periphery of your consciousness whose color also guides you in your search.

This does not, admittedly, speak directly to the issue of what it takes to notice some property. It is more immediately an account of the conception of properties when they are absent than of their experience when they are present. Nonetheless, both Hume's work and reason itself recommend that this can be immediately generalized into the kind of account of qualitative experience that I have been concerned with. Hume contends that we take notice of some quality only after "we have found a resemblance among several objects" (*ibid*., p. 18). A single encounter with an object *could not* yield an experience of one of its qualities.

I think our ability to discern any of a range of instances of a quality tends to confirm the view that thinking about a certain property involves more than just thinking of some one thing that has that property. In fact, I tend to think the phenomenological evidence tends to disqualify the suggestion that there is even this one image of an F thing explicitly before one's consciousness. When I look for something red on the desk I do not find that I have anything red before my consciousness. Indeed, having such an image there would be counterproductive, since the red mental image would just obstruct my view of the red physical object.

The view can be modified so that is does not pretend that there is any mental F before my consciousness in the typical situation when I either look for – i.e., conceive – or notice – i.e., experience – something F. It might be insisted, nonetheless, that there

must be F mental objects in the experiential *background* in order to notice that something is F. This view, obviously, cannot be denied on the basis of the phenomenological evidence. What I find through phenomenological inquiry is just the stuff that is explicitly before my consciousness.

What is important about this conception of qualitative experience, remember, is that it is supposed to provide support for thinking that properties are A-Atemporal. It does this by suggesting that properties are independent of the objects of sense, which alone are possessors of A-properties. What matters in this context, then, is the ontology the phenomenology supports, not the phenomenology itself.

Now, one version of this ontology I think can be fairly easily disposed of. The nominalist version of this thought implies that other particular objects must be red if this book is red. But this book could obviously be red even if that apple weren't. And it could be red even if that tomato weren't. It could be red even if nothing else whatever were red. Therefore, the redness of the book is not ontologically dependent on the existence of any other particular.

The Platonist version of this thought is less easily dismissed. The crude version of the Platonist view suggests that when the book is red two quite different and independent entities are involved. There is on the one hand the book I can see and touch and so forth. There is on the other hand its redness which I can think about. The two are linked by the participation of the book in redness.

But this idea – that Platonism implies that the book and its color are really two in this crude way – is surely a caricature. It suggests after all that the book is not really red, since redness is something quite apart from it. And whatever Platonists hold, they obviously cannot have a theory that denies the datum that the book is, after all, red.

Insofar as I understand Platonism, I suspect that if it is true, it follows that qualities have no A-properties. But the argument carries little force, since Platonism is not true.

<u>The Logical Connection between B- and A-Characteristics</u>

Having dispensed with some bad arguments for the timeless character of properties, what then are the good reasons for holding this doctrine? Consider the following. If x is past, and y present, I have argued, then x preceded y. If x preceded y, then, x can't be y. Now, suppose properties can have A-properties. Therefore, red, for example, is present. But since there were red things several years ago, red is also past. Therefore, red preceded red. Therefore, red is not red: a repugnant consequence.

The same argument, parenthetically, may be used against the view that substances have A-properties. Suppose endurantism is true. That is, if x and y are the same substance from then to now, then they really are identical, and thus y has all the properties x had. Say the book exists. Then this book is present. Since the book existed then, it is also past. Therefore this book preceded this book. Therefore, this book is not this book: another repugnant consequence.

The weakest point of this argument, as it concerns properties, is the principle that something's being past entails that it preceded whatever is present. How can the principle be denied? Take x and y. Say x is past while y is present. There are three relevant options concerning their B-relations: one preceded the other, they are simultaneous, or they are neither simultaneous nor preceding.

If one is interested in denying the principle, the first option, of course, is out. Could it be that even though x is past and y present, that they are simultaneous with each other? If x is simultaneous with y then it follows that x and y are at the same time – call it t.[113] Since y is present, and is at t, t must be present. But x is at t. Therefore, x must be present. Since x is also past, this option entails that something can be both past and present.

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[113] Assuming there is a time at which they occur.

This is a curious result, and one that suggests that the hypothesis that leads to it is false. It hardly seems plausible to suppose that whenever it is the case that one thing is past while the other is present that they are simultaneous.

The only remaining option then is the third: even though x is present and y past, they neither precede nor are simultaneous with each other. Something may be, therefore, in A-time without being in B-time. Against this, I am inclined to argue that something has A-properties if and only if it has B-relations.

Perhaps this possibility – that things can be A-temporal without being B-temporal – can be denied by appeal to a principle commonly assumed by both A- and B-theorists (see Smith 1993 and Dyke 2002, for example). According to them, the sentence token u of "it is raining now" is true iff the rain is simultaneous with u. This suggests that something's being present is logically connected with its being simultaneous with something else.

But surely that there is such a logically necessary connection cannot be shown in this way. Could it be that it is raining now even though the rain is not simultaneous with anything? It is evident, in any case, that it could be raining now even though the rain is not simultaneous with u. Some assertion "P" is true, it is commonly thought, if and only if P. "It is raining now" is true, then, iff it is raining now. By biconditional equivalence, it follows that it is raining now iff the rain is simultaneous with u. But obviously it could be raining now even though u was never uttered. It could be raining now even if no one uttered anything.

Another argument for the view that there is a connection between the having of A- and B-properties involves an examination of the nature of A-properties (see Oaklander 2002). If x is past and y present, they are related in some way. In one way, they differ. How do they differ? One could try claiming that in answering this question one must appeal to B-relations. After all, one way of answering this question is to claim that x and y differ temporally just insofar as x preceded y. But this is not necessary. One can in any

case claim that there is *sui generis* difference between being past and being present. But in addition to this difference there is a certain connection between something's being present and its being past. Specifically, one wants to say, something is present *before* it is past. These would not be the properties they are unless the things that had them had these relationships. They are, after all, *transient* characteristics. Something has one for a moment, and then *later* has another. But of course if one wants to deny that the possession of an A-property entails possession of a B-one, such ways of speaking must be avoided.

This seems right: something would not be an A-property unless it were possessed transiently. So x must be past after it is present. There is then a certain logical connection between the possession of an A-property and a B-relation. But it is not the right connection to save the principle I have been discussing. This line of reasoning just shows that x's being present entails that something possesses a B-relation – not that x does. The fact that x must be past after it is present does not entail that x has any B-relation at all. It entails only that x's being present preceded x's being past. And from this, as I've insisted on many occasions, it does not follow that x precedes anything. It seems there is room in this conceptual space for holding that although properties have A-characteristics, they do not enter into B-relationships. In the spirit of this dissertation, one could argue that properties are derivatively B-temporal.

For several paragraphs I have been considering the possibility that although x is past while y is present, x bears no B-relation to y. If x and y have no B-relation to each other, then neither is at any time either. Suppose they were – x on Tuesday and y on Wednesday. But it is a necessary truth that if x is at t, and y at t' and t preceded t' then x preceded y. It would then follow that x preceded y. If properties have A-properties they can have no B-relations and they cannot be at any times.

If properties have A-properties then it is logically possible for something to be now both past and present. In order for properties to have A-properties it must be

logically possible that though x is past and y present, they have no B-relation to each other whatever. If properties have A-properties, then some things with A-properties are at no time. I have been unable to show that anything like a contradiction results from any of these consequences. But they are together so difficult to accept that the hypothesis that leads to them is best avoided.

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