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Property possession as identity: an essay in metaphysics

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PROPERTY POSSESSION AS IDENTITY: AN ESSAY IN METAPHYSICS

by

Patrick Xerxes Monaghan

An Abstract

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

May 2011

Thesis Supervisors: Associate Professor Evan Fales

Professor Richard Fumerton

ABSTRACT

In this dissertation, I defend an account of property possession as identity. According to this account, for an entity to possess a property is for that entity and that property to be numerically identical to each other.

In chapter one, after explaining and defending certain methodological points concerning my thesis, I respond to certain objections one might raise to my account on the basis of various beliefs one might have about the nature of properties. In addition, I argue that there is at least one entity that possesses at least one property essentially.

In chapter two, I argue against the two main competitors to my account, Externalism and Internalism. Against Externalism, I argue that whereas it implies that no entity ever possesses any properties essentially, that claim is false. Against Internalism, I argue that it fails to provide what I call a necessarily true sufficient condition for property possession. In chapter two, I also examine two views on property possession that I regard as hybrids of Externalism and Internalism. The first is the view of Armstrong, and the second is the view of Zalta.

In chapter three, I defend the premises of the following argument that property possession and identity are one and the same relation. First, property possession is a relation. Second, if property possession is a relation, then either it is the relation of identity, or else it is some relation other than identity. Third, if property possession were some relation other than identity, then there would be at least one entity that possesses a second entity as a property. But fourth, it is not possible for one entity to possess a second entity as a property. Thus, property possession and identity are one and the same relation.

In chapter four, I define what I call the nature of an entity. I argue that there is nothing more to any given entity than the nature of that entity. And I show that by utilizing the view that

there is nothing more to any given entity than its nature, I can rebut a wide variety of objections to my account of property possession as identity.

Finally, in chapter five, I discuss an ontological payoff of my account, which is that it provides a once-and-for-all refutation of the Substratum Theory of substance.

Abstract Approved: _____
Thesis Supervisor

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Date

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Graduate College
University of Iowa
Iowa City, Iowa

CERTIFICATE OF APPROVAL

PH.D. THESIS

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

Patrick Xerxes Monaghan

has been approved by the Examining Committee for the thesis requirement for the Doctor of Philosophy degree in Philosophy at the May 2011 graduation.

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Craig Gibson

After the philosophies named came the system of Plato, which followed these philosophies in many respects but also had its own peculiarities distinguishing it from the philosophy of the Italians. For, having in his youth become familiar first with Cratylus and the Heraclitean doctrine (that all sensible things are always in a state of flux and that no science of them exists), he continued to believe these even in his later years. Now Socrates was engaged in the study of ethical matters, but not at all in the study of nature as a whole. Yet in ethical matters he sought the universal and was the first to fix his thought on definitions. Plato, on the other hand, taking into account the thought of Socrates, came to the belief that, because sensible things are always in a state of flux, such inquiries were concerned with other things and not with the sensible; for there can be no common definition of sensible things when these are always changing. He called things of this other sort "Ideas" and believed that sensible things exist apart from Ideas and are named according to Ideas. For the many sensible which have the same name exist by participating in the corresponding Forms. The only change he made was to use the name "participation"; for the Pythagoreans say that things exist by imitating numbers, but Plato, changing the name, says that things exist by participating in the Forms. As to what this imitation of or participation in the Forms might be, they left this an open question. -Aristotle, *Metaphysics*, 987a30-987b15

To say that the forms are patterns and the other things participate in them is to use empty words and poetical metaphors.

-Aristotle, *Metaphysics*, 991a20

[T]he unpacking by literal speech, within the limits of the humanly possible, of all metaphors, anthropomorphic, spatial, or otherwise, is nowhere more urgent, just as it is nowhere more difficult, than in ontology.

-Gustav Bergmann, *New Foundations of Ontology*.

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CHAPTER I INTRODUCTION

Some problems, including the one to be solved.[1] In philosophy, perhaps more so than in any other discipline, it is difficult to find a proper place from which to begin because practically any substantive claim one wishes to make will inevitably betray a whole host of controversial assumptions. Despite this fact, I take it to be among the data of metaphysics that some entities are red, while others are blue; some entities are round, while others are square; some entities are smooth, while others are rough; and so forth.[2] In other words, to put the point more generally, I take it to be a datum of metaphysics that at least some entities are qualitative.[3] (Indeed, it will eventually become clear that I believe that all of them are.) To be sure, once we begin to examine the metaphysical underpinnings of the qualitativeness of entities, certain controversies are bound to arise. In fact, as we will soon see, my thesis itself is highly controversial. Nevertheless, in the meantime, it seems safe enough as a starting-point to take the set of all qualitative entities as our data set.

Over time, a variety of attempts have been made to analyze various aspects of the phenomenon of qualitativeness, and these attempts have, in turn, given rise to a number of technical problems in metaphysics. But while these problems have sometimes been conflated with each other, it is important for our purposes to distinguish among them,

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[1] In this essay, I will use the term 'entity' (and, occasionally, 'thing') technically in such a way that an entity is anything that exists, regardless of the ontological category to which it belongs. I will use the variables 'x', 'y' and 'z' to quantify over all entities.

[2] In claiming that these entities exist, I do not presuppose that they do so mind-independently. But neither do I presuppose that they do not do so.

[3] As I understand it, qualitativeness is a disjunctive notion in the sense that x is qualitative just in case either x is red (or some other color) or x is circular (or some other shape) or x is positively charged (or negatively or neutrally charged), etc.

since I am primarily concerned with only one of them in this essay. It is the one that I regard as being the most fundamental.

For example, one problem with which I am not primarily concerned in this essay is the one traditionally referred to as the problem of the one over the many, or the problem of universals. Roughly speaking, this is the problem of what it is for two entities to be qualitative in the same respect, e.g., what it is for two entities to be red. As I suggested, I am not primarily concerned with this problem because I believe that there is an even more fundamental problem than it. Roughly speaking, this is the problem of what it is for a single entity to be qualitative in a single respect in the first place, e.g., what it is for a single entity to be red. Still, despite the fact that I do not take the problem of universals to be absolutely fundamental, I will return to discuss it in greater detail below.

A second problem with which I am not primarily concerned is the problem of specifying the conditions under which a property (e.g., the property of being red) can be truly predicated of an entity.[4] I refer to this problem as the problem of predication. Why am I not primarily concerned with this problem? On the one hand, as I will explain below, it turns out that according to my own view, an entity is qualitative in a certain respect just in case we can truly predicate a certain property of that entity. For example, an entity is red just in case we can truly predicate the property of being red of that entity.[5] But, on the other hand, as I will also explain, there are two reasons why I do not regard the problem of predication as being absolutely fundamental insofar as the phenomenon of

[4] I am using the term 'property' topic-neutrally in such a way that a property can turn out to be either a universal or a particular.

[5] This is merely a contingently true material biconditional. There is nothing deeper to it than that.

qualitativeness is concerned. The first is that is that whereas the predication of properties of entities is a mind-dependent phenomenon, the qualitativeness of entities is not, or at least not to the same extent.[6] The second is that whereas predication is a three-place relation that relates something being predicated (i.e., a property), something of which it is predicated (i.e., an entity) and something doing the predicating (e.g., a person) to each other in a certain sort of way, there is an even more fundamental two-place relation that an entity bears to a property in virtue of which that entity is qualitative in the first place.[7] While this relation has sometimes been referred to as instantiation or exemplification, it has also been referred to as inherence. For the sake of neutrality, I will refer to it as property possession.[8] It is the relation that x bears to y only if y is a property that can be truly predicated of x.[9] Still, despite the fact that I also do not regard the problem of predication to be absolutely fundamental, I will return to discuss it in greater detail below as well.

The problem with which I am primarily concerned in this essay is the problem of what it is for an entity to possess a property. Alternatively put, it is the problem of identifying the relation that x bears to y only if y is a property that can be truly predicated of x. I refer to this problem as the problem of property possession. As I said above, it is to be distinguished from the problem of universals; for as I will explain below, it is not

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[6] The qualitativeness of entities is a mind-dependent phenomenon, of course, in those cases in which the relevant entities are mind-dependent, e.g. in the case of minds themselves.

[7] To claim that a relation is a two-place relation is not to claim that it can relate numerically distinct entities to each other. If identity is a relation, then it is a two-place relation.

[8] As far as I am able to determine, whereas those who employ the notion of inherence tend to be proponents of what I refer to below as Internalism, those who employ the notions of instantiation, exemplification, participation, etc. tend to be proponents of what I will refer to below as Externalism.

[9] Below I will explain why the converse does not hold.

the problem of what it is for two entities to possess the same property, but rather the problem of what it is for a single entity to possess a single property in the first place. And as I said, the problem of property possession is also to be distinguished from the problem of predication; for as I will explain, according to my account, whereas an entity possesses a property only if that property can be truly predicated of that entity, it is not the case that if a property can be truly predicated of an entity, then that entity automatically possesses that property as one of its own. Instead, as I will explain, according to my account, if a property can be truly predicated of an entity, then that property is a part of what I call the nature of that entity. As I will explain, the nature of an entity is the property possessed by that entity that is complete and total in the sense that it has as parts not only all of the properties that can be truly predicated of that entity, but also all of the properties that can be truly predicated of any one of that entity's parts (as well as whatever relations there are that obtain among those various properties). For example, as I will explain, the nature of a red, rubber ball is the complex property possessed by the ball that has as parts not only a certain color, but also a certain shape, size, mass, density, texture, and so forth.

I will have more to say about the problems of property possession, universals and predication, as well as other, related problems, below. In the meantime, however, I wish to turn to the issue of which is the correct solution to that first problem.

The account to be defended. What is it for an entity to possess a property? Over the course of the history of western philosophy, two general answers to this question have been proposed. I refer to them as Externalism and Internalism about property possession.

On the one hand, Externalism is the view that for x to possess a property is for x to bear a certain relation (to be specified relative to the version of Externalism under consideration) to a certain entity y (also to be specified in such a manner) that is external to x (in a manner to be specified below). One version of Externalism is Platonic Transcendent Realism, which is the view that for x to possess a property is for x to instantiate a transcendent (i.e., non-spatial) universal. For example, according to this view, for x to possess the property of being red is for x to instantiate the transcendent universal Redness.[10] Ironically enough, as far as I am able to determine, most other versions of Externalism are also versions not of Realism about universals, but of Nominalism, or the view that there are no such things as universals. One such version is Predicate Nominalism, which is the view that for x to possess a property is for x to satisfy a predicate, e.g., the predicate 'is red.' Another version is Concept Nominalism, which is the view that for x to possess a property is for x to fall under a certain concept, e.g., the concept of a red entity. Still another version is Class Nominalism, which is the view that for x to possess a property is for x to be a member of a certain class, e.g., the class of all and only red entities.[11] And then there is Resemblance Nominalism, which is the view that for x to possess a property is for x to be a member of a certain resemblance-community, e.g., the community of all and only red entities. I will discuss these and other versions of Externalism in greater detail below.

On the other hand, Internalism is the view that for x to possess a property is for x to bear a certain relation (to be specified relative to the instance of Internalism under

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[10] I do not presuppose that Platonic Transcendent Realism is equivalent to Plato's own view. I will discuss both views in greater detail below.

[11] As I will explain in chapter two, to avoid the charge of blatant circularity, the Class Nominalist must insist that this class be "given in extension." Similar remarks apply to Resemblance Nominalism.

consideration) to a certain entity y (also to be specified in such a manner) that is internal to x (in a manner to be specified below). One version of Internalism is Aristotelian Immanent Realism, which is the view that for x to possess a property is for that property to be an immanent (i.e., spatial) universal that inheres in x. Another is the version of trope theory according to which for x to possess a property is for that property to be a trope that inheres in x. I will also discuss these and other versions of Internalism in greater detail below.

Given the very general nature of Externalism and Internalism, one may be forgiven for thinking that whatever exactly the correct account of property possession turns out to be, it will inevitably be a version of either the one view or the other. But it is important for our purposes to note that despite whatever differences there are between the various versions of these two views, they all share a presupposition in common, which is that if x possesses y as a property, then x and y are numerically distinct from each other. Now this presupposition may seem perfectly innocent at first, perhaps even self-evident. But as I will argue, since Externalism and Internalism are founded upon this presupposition, they are actually founded upon a mistake. Accordingly, the purpose of this essay is to argue for an account of property possession as strict, numerical identity. According to this account, for x to possess y as a property is for x and y to be numerically identical to each other. In other words, it is for them to be one and the same thing.

Of course, at this point one might ask: What does it mean to claim that for x to possess y as a property is for x and y to be numerically identical to each other? According to my initial answer to this question, it means that the following three claims are true. First, property possession is the relation that x bears to y only if y is a property

that can be truly predicated of x. Second, identity is the relation that, necessarily, any given any entity bears only to itself. And third, property possession and identity are one and the same relation.

Prior to proceeding, it should be noted that while I claim that property possession is the relation that x bears to y *only if* y is a property that can be truly predicated of x, I do not claim that it is the relation that x automatically bears to y *if* y is a property that can be truly predicated of x.[12] Instead, as I suggested above and as I will explain in greater detail below, I claim that if a property can be truly predicated of an entity, then that property is a part of what I call the nature of that entity. As I define that notion, the nature of x is the more or less complex property possessed by x that has as parts not only all of the properties that can be truly predicated of x, but also all of the properties that can be truly predicated of any one of x's parts, as well as whatever relations obtain between those various properties. For example, the nature of the red, rubber ball is the property possessed by that ball that has as parts a certain shape, size, mass, density, color, texture, and so forth. I will have more to say about the notion of the nature of an entity below.

In the meantime, to provide a more precise answer to the question of what it means to claim that for x to possess y as a property is for x and y to be numerically identical to each other, we must first take a short detour through mereology. Mereology is the logic of parts and wholes. It is usually formulated by taking the transitive and reflexive but non-symmetrical relation of parthood as a primitive, and by defining other

[12] Though I will explain below why I do not claim this, perhaps my reasons are obvious enough already, given that there clearly are at least some entities of which two or more properties can be truly predicated.

mereological relations on the basis of it.[13] (Though parthood is treated as a primitive, a variety of examples can be given to illustrate it, e.g., the solar system is a part of the universe. I am a part of the solar system. I am a part of myself.) To account for the non-symmetrical nature of parthood, it is standard to draw a distinction between the relations of proper and non-proper parthood. On the one hand, intuitively speaking, for x to be a proper part of y is for x to be a smaller-sized part of y. More formally, x is a proper part of y just in case x is a part of y but y is not a part of x. Unlike parthood, the relation of proper parthood is transitive but anti-reflexive and anti-symmetrical. On the other hand, intuitively speaking, for x to be a non-proper part of y is for x to be a same-sized part of y. More formally, x is a non-proper part of y just in case x is a part of y and y is a part of x. Unlike parthood and proper parthood, the relation of non-proper parthood is transitive, reflexive and symmetrical. Finally, x and y overlap each other just in case they share a part in common, and they are disjoint just in case they do not overlap. Unlike parthood, proper parthood and non-proper parthood, the relation of overlap is reflexive and symmetrical, but non-transitive.

I will return to discuss the significance of the relation of non-proper parthood in relation to my account below. But in the meantime, there are several points concerning the metaphysics of mereology that should be noted prior to proceeding.[14] The first is that on the standard interpretation of mereology, it is assumed that x is a non-proper part of y

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[13] As I understand the notions, relation R is symmetrical just in case, for any x and y, if x bears R to y, then y bears R to x. Being as tall as is a symmetrical relation. R is anti-symmetrical just in case, for any x and y, if x bears R to y, then y does not bear R to x. Being taller than is an anti-symmetrical relation. And R is a non-symmetrical relation just in case, for some but not all x and y, x bears R to y and y bears R to x. Love is a non-symmetrical relation, given that whereas sometimes it is requited, sometimes it is not. Similar remarks apply with the appropriate changes made to transitive and reflexive relations.

[14] While the importance of some of the remarks I make about the metaphysics of mereology will be immediately evident, the importance of others will become evident only later on.

just in case x and y are numerically identical to each other.[15] According to this assumption, whereas the proper parts of an entity are the parts of that entity to which it is not identical, the non-proper part of an entity is the part of that entity to which it is identical. In other words, according to this assumption, whereas nothing can have just one proper part, nothing can have more than one non-proper part. In this essay, I will not presuppose that this assumption is true. In fact, it seems obvious to me that it is actually false. On the one hand, I grant that if x and y are identical to each other, then of course they are non-proper parts of one another, given that they will perfectly coincide. But, on the other hand, I deny that if x and y are parts of each other, then they are automatically identical to one another. Now there is a rather large literature over the issue of whether there are certain *objects* that constitute a counter-example to the principle that x and y cannot be parts of each other without being identical (e.g., the statue and the clay). But in my opinion, the clearest counter-examples to this principle are ones that are couched instead in terms of *properties*. For example, consider the color and shape in the nature of a red, rubber ball. It seems perfectly obvious to me that this color and shape are parts of each other, given that they perfectly coincide with one another. But it also seems perfectly obvious that this color and shape are numerically distinct from each other. After all, presumably that ball could still retain the very same shape in its nature even if it were painted blue.[16] Still, as we will see in chapter three, even though I do not assume that x is a non-proper part of y only if x and y are numerically identical to each other, my doing so does not make the task of establishing the truth of my conclusion any easier. In

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[15] This standard interpretation is usually referred to as classical extensional mereology. For more on this interpretation, see Simons (1987).

[16] This argument, of course, relies on the assumption that these properties are spatial. I will argue for this assumption below.

fact, as we will see there, my doing so only succeeds in making that task that much more difficult for me to achieve.

The *second* point is that on the standard interpretation, the principle of mereological extensionalism is assumed to be true. According to this principle, if x and y have proper parts in the first place, then x and y are identical to each other just in case they share all such parts. It should be noted that this principle is to be distinguished from the more general one according to which, given any x and y, regardless of whether they have proper parts or not, they are identical to each other just in case they share all such parts; for even if there exist just two mereological atoms (i.e., entities with no proper parts), then whereas the existence of these atoms will constitute a counter-example to the latter principle, their existence will not constitute a counter-example to the principle of mereological extensionalism.

This principle is also to be distinguished from the one according to which, given any x and y, they are identical to each other just in case they share all of the same *parts*; for if there are two mereological atoms that are parts of each other, then whereas the existence of these atoms will constitute a counter-example to the latter principle, their existence will not constitute a counter-example to the principle of mereological extensionalism. Of course, if one believes that x cannot be a non-proper part of y without being numerically identical to y, one will reject out of hand the claim that two numerically distinct atoms can nevertheless still be parts of each other. But in that case, whereas the latter principle will be trivially true, the principle of mereological extensionalism will be substantively true, if true at all.

Not surprisingly, I also reject the principle of mereological extensionalism as false. On the one hand, I grant that if x and y are identical to each other, then of course they will share whatever proper parts they may have in common. But, on the other hand, I deny that that if x and y have all of the same proper parts, then x and y are automatically identical to each other, even assuming that they have proper parts in the first place. Here once again the color and shape in the nature of a red, rubber ball constitutes a counter-example. Of course, at this point one might wonder: What exactly are the proper parts of the color (or shape) in the nature of the red, rubber ball? But the answer to this question is not as mysterious as one might suppose if we regard the properties in that nature as tropes. Presumably no one would deny that we can take a sharp knife (or a laser) and slice the ball into two more or less equally sized pieces. But by doing so, we will have thereby cut the property of being red that is a part of the nature of the red, rubber ball into two such pieces. These pieces are proper parts of that property prior to its being cut in half. I will have more to say about the nature of properties below.

The *third* is that on the standard interpretation, mereology is assumed to be topic-neutral in the sense that there is nothing in principle to prevent non-spatial entities from having non-spatial entities as parts in the very same way in which spatial entities can have spatial entities as parts. (Some mereologically-inclined philosophers of religion claim that the property of being omnipotent is a part of God. Some mereologically inclined philosophers of mathematics claim that the line of natural numbers is part of the line of real numbers.) Indeed, according to this assumption, there is nothing in principle to prevent some entities from having both spatial and non-spatial entities as parts (though it does become somewhat perplexing when it comes time to determine whether such

entities themselves are spatial or not.) For my part, as I will explain below, I am inclined to believe that all entities are spatial ones. So for that reason, I am inclined to believe that x overlaps y just in case x overlaps all of the spatial locations that y overlaps. Still, as we will also see, many views on property possession other than my own are actually committed to the existence of non-spatial entities (e.g., transcendent universals, classes, concepts, etc.). So for that reason, I will simply grant for the sake of the argument that mereology is topic-neutral in the manner just described.

The *fourth* is that on the standard interpretation, mereology is assumed to be a universally applicable logic in the sense that, given any x and y, either x is a part of y or else not. This assumption, of course, is trivially true and remains so even if we assume that all entities are spatial ones, as I believe; for it is trivially true that, given any spatial x and y, either y overlaps all of the spatial locations that x overlaps or else y does not do so. The importance of the fact that mereology is topic-neutral cannot be over-stated. To be sure, there may be more to the world than mereology in the sense that there are various non-mereological relations that obtain among various entities, e.g., causal relations, unity relations, determination relations, and so forth. But, nevertheless, despite this fact, if mereology is universally applicable, then the world is shot through with mereology in the sense that, given any x and y, there is some mereological relation or other that obtains between them. In the very least, given any x and y, either they overlap each other or else they are disjoint.

The *fifth* is that on the standard interpretation, mereological relations are assumed to obtain among the entities that they obtain among in a mind-independent manner. For example, if we assume that the eraser of my pencil is a part of that pencil, and if we

assume that the pencil as a whole is mind-independent, then according to the principle under consideration, that eraser will continue to be a part of that pencil even if all minds suddenly cease to exist for whatever reason (assuming that the pencil and eraser aren't burnt up, ground down to dust, obliterated, etc.). For my part, not only do I concur with the assumption that mereological relations obtain mind-independently, at least in some cases;[17] I also believe that as long as minds continue to exist, they can be directly aware of the obtaining of those relations. For example, assuming that one can be directly aware of entities like pencils and erasers in the first place,[18] I contend that since one can be directly aware of the pencil's overlapping of the eraser, one can be directly aware of the eraser's being a part of the pencil. I will return to the topic of direct awareness in relation to my view below.

The *sixth* and final point is that on the standard interpretation, the principle of unrestricted composition is assumed to be true. According to this principle, given any non-empty set of entities, all of the elements of this set are proper parts of a mereological whole, regardless of how scattered the elements of this set are with respect to each other. While I am inclined to believe that this principle is true, nothing of significance turns on this point.

We are now in a position to return to the question: What does it mean to claim that for x to possess y as a property is for x and y to be numerically identical to each other? According to my account, to claim that x possesses y as a property is to claim that y is a certain part of x. But it is not to claim that y is a proper part of x, as some seem to

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[17] Of course, they do not obtain mind-independently when they obtain between minds and their parts.

[18] This, of course, is a controversial assumption. However, since the issues of how exactly to formulate and defend direct realism would require an entire essay of their own, I simply set them aside at this time.

have thought.[19] Rather, if one accepts the assumption that the relation of non-proper parthood only ever obtains between entities that are numerically identical to each other, it is to claim that y is *the* non-proper part of x. Otherwise, if one rejects that assumption, as I do, it is to claim that y is the non-proper part of x to which x is identical.

To provide an even more precise answer to the question, recall the notion of the nature of an entity. The nature of x is the more or less complex property possessed by x is that is complete and total in the sense that it comprises as parts not only all of the properties that can be truly predicated of x, but also all of the properties that can be truly predicated of any one of x's parts, as well as whatever relations obtain among those various properties. Given this definition, according to my account, for x to possess y as a property is for y to be the non-proper part of the nature of x to which that nature is identical, and for that nature to be the non-proper part of x to which x is identical. To put the point less formally, one might say that according to my account, for an entity to possess a property is for that entity to possess a more or less complex nature, as long as it is also understood that according to my account, there is nothing more to any given entity than the nature of that entity.

Some potential misconceptions about my account. At this point, I am the first to admit that my account of property possession must seem highly idiosyncratic, if not downright bizarre. But even so, there are several misconceptions about my account that should be addressed prior to proceeding. The *first* is that one might believe that my account insists upon the identification of relatively complex material objects, such as a red, rubber ball, on the one hand, with relatively simple properties, such as the property of being red, on

[19] See chapter two.

the other. But this belief is a mistake. Presumably it is based on the (admittedly natural) assumption that the red, rubber ball possesses the property of being red. But since the red, rubber ball obviously is not identical to the property of being red (given that there is more to the nature of that ball than that property), that ball cannot be said to possess that property on my account. Instead, according to my account, there is more to the property possessed by the ball than the property of being red. According to my account, *the* property possessed by the ball is the relatively complex nature that has as parts not only a certain color, but also a certain shape, size, mass, density, texture and so forth. So even though there is nothing more to the red, rubber ball that the nature of that ball, this does not mean that there is nothing more to that nature than the mere property of being red.

The *second* is that one might believe that if the red, rubber ball does not possess the property of being red, then we cannot truly predicate that property of that ball in the first place. But this belief is also a mistake. Presumably it is based on the assumption that the relation that an entity bears to a property just in case that property can be truly predicated of that entity is none other than the relation that an entity bears to a property just in case that entity possesses that property. But as I will argue below, these two relations need to be distinguished from each other. On the one hand, I grant that if an entity possesses a property, then that property can be truly predicated of that entity. But, on the other hand, as I will explain, I deny that if a property can be truly predicated of an entity, then that entity automatically possesses that property as one of its own. Instead, as I said above, I claim that if a property can be truly predicated of an entity, then that property is a part of the nature of that entity. To illustrate this point, consider once again the case of the red, rubber ball. As I will argue below, the property of being red can be

truly predicated of that ball.[20] Now if the property of being red can be truly predicated of the red, rubber ball, then according to my account, that property is a part of the nature of that ball. But since there will be more to that nature than that property, it follows that we can still truly predicate the property of being red of the red, rubber ball, even though that ball does not possess that property. Again, the ball possesses a complex nature of which that property is a mere part.

The *third* is that one might believe that if the red, rubber ball does not possess the property of being red, we cannot truly say of that ball that it is red in the first place. But this belief is a mistake as well. First of all, it is trivially true that, given any red, rubber ball, that ball is red. Second, as I will argue below, an entity is red just in case we can truly predicate the property of being red of it. And third, as I explained above, if the property of being red can be truly predicated of a red, rubber ball, then that property is a part of the nature of that ball. Consequently, since (again) there will be more to that nature than just that one property, it follows that the red, rubber ball can still be red even though it does not possess the property of being red.

The *fourth* is that one might believe that if no relatively complex material object possesses the property of being red, then nothing will do so. But this belief too is a mistake. On the one hand, I grant that just like the red, rubber ball, no qualitatively complex entity (e.g., a table or chair) will possess the property of being red on my account; for according to my account, the nature of any qualitatively complex entity will have two or more properties as parts, as does the nature of the red, rubber ball. But, on the other hand, since the property of being red obviously is self-identical, as are all

[20] While this claim may seem obvious, one will object to it if one does not believe in the existence of properties.

things, it follows that according to my account, that property possesses itself. It possesses itself as a property. In other words, according to my account, if x possesses the property of being red, then x turns out not to be a qualitatively complex entity, but rather what I call an instance of redness. As I will explain below, if x is an instance of redness, then there will nothing more to x than its nature and nothing more to its nature than the property of being red that x possesses.[21] And as I will explain, the claim that x is an instance of redness is compatible both with the claim that x is a universal and with the claim that x is a particular (i.e., a trope).

Of course, at this point one might object that if x turns out to be just a mere instance of redness, this implies that instances of redness are somehow capable of existing utterly independently of all other entities – floating free, as it were. But this is also a mistake; for as I will explain below, according to my account, no property can exist without being a part of the nature of some entity or other. So if x is an instance of redness, it must be a part of the nature of some entity, such as a red, rubber ball.

On the other hand, one might also object that the claim that x is a property that possesses itself amounts to a kind of category mistake. Since the time of Aristotle's *Categories*, it has been widely agreed that properties do not possess themselves, but rather are possessed by other things. But as I will explain below, I have two replies to this objection. According to the first, given any property, if that property did not possess itself, it could not be truly predicated of any entity at all. For example, I will argue below that if the property of being red[22] did not possess itself, then the world would be a world

[21] This is not to say that the nature of this property does not have other properties as proper parts, such as a hue, a shade, etc.

[22] Or the *properties* of being red, if trope theory is true.

utterly devoid of all red entities. And according to the second, once the implausible doctrine that all meaningful predicates correspond to their own genuine properties has been rejected, and once the remaining sparse number of properties have been brought down from Plato's heaven and made spatial, the claim that all properties possess themselves can be seen to be extremely plausible. Indeed, ironically enough, given the Platonic pedigree of the claim that all properties possess themselves, it can be seen to be extremely plausible from an empirical point of view. For example, as I will argue, it is phenomenologically obvious that the property of being red that is a part of the nature of a red, rubber ball *is* red (where, just to be sure, this 'is' is the 'is' of predication, not the 'is' of identity).

The *fifth* misconception is that one might believe that to claim that for an entity to possess a property is for that entity to be identical to that property is *just* to claim that an entity's possession of a property amounts to that entity's being self-identical. But this too is a mistake. After all, to claim that for an entity to possess a property is for that entity to be identical to that property is *also* to claim that an entity's being self-identical amounts to that entity's possessing itself as a property. It is not as though property possession drops out of the picture on my account. After all, as I will explain below, my account does not amount to an elimination of either property possession or identity. Nor, as I will explain, does it amount to an asymmetric reduction of the one to the other. Instead, as I will explain, it amounts to a symmetrical identification of them with each other.

Sixth, one might believe that if one accepts my account, one is forced to accept a kind of ontological extravagance. Consider the case of the red, rubber ball once again. First of all, we can truly predicate the property of being red of that ball. But secondly,

since (as I said above) x possesses a property only if that property can be truly predicated of x, and since (according to my account) the property of being red possesses itself, that property can be truly predicated of itself. In that case, however, there will be two red entities that occupy roughly one and the same time and place, whereas we expected only one. Hence, for this reason one might believe there is a kind of ontological extravagance on my account. But in fact there is not. On the one hand, I grant that according to my account, the property of being red can be truly predicated both of the red, rubber ball and of itself. But, on the other hand, whereas the predication of that property of that ball amounts to that property's being a part of the nature of that ball to which it is not identical, the predication of that property of itself will amount to that property's being a part of its nature to which it is identical. So despite initial appearances to the contrary notwithstanding, the case of the red, rubber ball and the redness of that ball does not amount to a case of two red entities, or at least two entities that are red in exactly the same way. Of course, to motivate the conclusion that it is such a case, one might cite the fact that even though the property of being red is self-identical, whereas it is not identical to the ball, it is still a part both of itself and of that ball. But since the principle of unrestricted composition has been assumed to be true, the property of being red will be a part of lots of non-red things, e.g., the physical universe as a whole. So the fact that the property of being red is a part of a variety of different entities cannot be cited as evidence that my account entails an ontological extravagance, at least not one of red entities.

I have no doubt that there will be other misconceptions still. But not everything can be addressed up front, in one fell swoop. When one writes an essay on a topic as central as that of property possession, a host of issues clamor and jostle with each other

for attention like so many unruly children. What exactly is the relation that obtains between property possession and predication on my account? What implication, if any, does my account have regarding the issue of which properties there are? Does my account rule out the existence of universals? Does my account commit me to the truth of trope theory? What implication, if any, does my account have regarding the issue of substance? Does my account imply that the Bundle Theory is true, or is it compatible with the Substratum Theory? What is the metaphysical "glue" that binds the properties in the nature of an entity together with each other? What implication, if any, does my account have regarding the issue of change? What implication, if any, does my account have regarding the issue of modality? The list goes on and on. And the situation, of course, becomes even more fraught, given the controversial nature of my account. Now all of these questions, and others besides them, will eventually be addressed below. But they cannot profitably be addressed now, since more needs to be said about my account first. So in the meantime, I urge patience.

The highly metaphorical nature of other accounts. At this point, even if some of the more prevalent misconceptions about my account have been cleared up, presumably there will be some for whom that account still seems strange, even alien. But as will become clear below, many other, more familiar, views on property possession are couched in terms of notions that are highly metaphorical in nature. For example, as we saw in one of the passages quoted at the outset of the essay, according to Aristotle, Plato's view on property possession relies on the notion of participation, if not outright imitation. Nowadays, of course, philosophers are much more inclined to say that for an entity to

possess a property is for that property to *inhere* in that entity. (As far as I am able to determine, those who employ the notion of inherence tend to ascribe to some version of Internalism.) But since the notion of inherence has its earliest historical roots in the idea of one thing's becoming lodged in another (e.g., the scraps of meat that inhere in the man's teeth), this notion seems no less metaphorical than the ones upon which Plato reportedly relied.[23] Others claim that for an entity to possess a property is for that entity to *exemplify* that property. (As far as I am able to determine, the ones who employ the notion of exemplification tend to ascribe to some version of Externalism.) But since the notion of exemplification has its earliest historical roots in the idea of a person who teaches by virtue of his or her own example (e.g., the charitable saint), this notion seems no less metaphorical than the previous ones. Still others claim that for an entity to possess a property is for that entity to *instantiate* that property. (As far as I am able to determine, those who employ this notion also tend to ascribe to some version of Externalism.) But since the notion of instantiation has its roots in the idea of the use of a concrete emblem or totem to represent an abstract ideal, this notion seems no less metaphorical than the rest.

Of course, at this point one might object that even if the notions of inherence, exemplification and instantiation have historical roots in certain notions that seem wholly unrelated to the phenomenon of property possession, this does not preclude the possibility that over time, the meanings of at least some of these terms have evolved, coming to signify something precise and well understood regarding that phenomenon. But this is far from being the case. Instead, if one scours the relevant literature for a clear and precise answer to the question of exactly what it means to claim that a property

[23] I derive the examples I use in this paragraph from the online Oxford English Dictionary.

inheres in an entity, or that an entity exemplifies or instantiates a property, one's search is in vain. As far as I am able to determine, the sad and scandalous fact of the matter is that while these notions continue to be widely employed, they are done so without much comprehension either of what they used to mean or of what they are supposed to mean today. Thus, the problem of what it is for an entity to possess a property – a problem that, as we saw above, Aristotle referred to long ago as an open one – never really has been settled, but has remained open down to the present day.

On the other hand, even if one grants that all of the preceding notions remain mere metaphors, this does not preclude the possibility of our eventually coming to an adequate understanding of the phenomenon of property possession in terms of them. But as I will explain below, there is a problem with these metaphors, which is that they all seems to suggest that if an entity is to possess a property, then either that entity or that property must engage in some sort of *activity*. For example, if one claims that for x to possess the property of being red is for that property to inhere in x, this seems to suggest that this property must quite literally *do* something if x is to become (or at least remain) red, i.e., it must inhere in x. If one claims that for x to possess the property of being red is for x to exemplify that property, this seems to suggest that x must do something to become (or remain) red. And if one claims that for x to possess the property of being red is for x to instantiate that property, this seems to suggest much the same thing.

Of course, at this point one might object that I have simply misunderstood the notion of activity that is required in the present context. Strictly speaking, it is not as though the property of being red or the entity said to posses it must do something if that entity is to become (or remain) red. Rather, the notion of activity required is simply the

one that is involved when an agent or event acts as an agent or efficient cause to bring that entity and that property together with each other in a certain sort of way. But in fact it is the objector who misunderstands the notion of activity that is here required. For even if we assume that an agent or event acts to cause the property of being red to become related to x via the relation of agent or efficient causation, then regardless of whatever other relations we assume obtain between that property and x, if we still insist that x and that property are numerically distinct from each other, there is still an outstanding issue yet to be faced, which is the issue of exactly how this property is at all relevant to x's being red in the first place. Does that property *affect* x somehow, thereby making x red? If so, how exactly does it do it? To use the traditional terminology, about which I will have more to say below, the issue is not one of agent or efficient causation, but instead one of *formal causation*.

At this point, even if one grants that I am correct about the notion of activity that is required in the present context, one might still object that this notion is not as problematic as I would have one believe. But as I will argue in chapter three, this objection is a mistake, as this notion is very problematic indeed. At the same time, however, as I will also explain, it is actually quite easy to see how this mistake originally must have come to be made. For as I will argue, if x is said to possess the property of being red, then unless this property engages in some sort of activity in relation to x, thereby making x red, unless x engages in some sort of activity in relation to that property, or unless something else engages in some sort of activity in relation to them both, thereby bringing them together with each other, it is very difficult to see how x

could be red in the first place, or how x's being red would require the involvement of this (or indeed any other) numerically distinct entity.

Of course, here one might object that the very claim that x *possesses* the property of being red itself suggests that x must do something to become (or remain) red. On the basis of this objection, one might then conclude not only that the notion of activity is unavoidable in the present context, but also that the metaphor of inherence, exemplification or instantiation is as good as it gets. But as I will explain below, according to my account, if x is to possess the property of being red, then nothing needs to perform any activity whatsoever for x to be red, not even x itself. Indeed, according to my account, if x is to possess the property of being red, then x's being red does not require the involvement of any other entity at all. Instead, according to my account, if x possesses the property of being red, then x is red simply all on its own. In other words, it is red inherently. It just comes that way, so to speak. It just is an instance of redness.

Finally, one might object that mine is not the only account of property possession on which the notion of activity is absent. For example, one might claim that there is no such notion present on the account according to which for x to possess the property of being red is for x and that property to be the constituents of a certain state of affairs or fact. But as we will see below, I have two replies to this objection. According to the first, some notion of activity may still be present on this account after all. For even if this account does not imply that x or its property engages in any sort of activity, it may suggest that the state of affairs or fact does so, if it suggests that this state of affairs or fact brings x and its property together with each other in a certain sort of way. And according to the second, even if the proponents of states of affairs and facts ultimately are

able to purge their analyses entirely of the notion of activity, it may be unwise of them actually to do so. For as I will explain below, ironically enough, given the pervasive and pernicious influence of the presupposition that property possession somehow involves activity, out of all of the views on property possession other than my own, the ones that invoke some notion of activity in their analysis actually have an advantage over the ones that do not do so.

An historical precedent for my account. At this point, it should be noted that even if my account of property possession still seems idiosyncratic, it is not entirely something new under the sun, since it has an historical precedent in Plato's theory of forms. As I will explain below, I distinguish between Plato's view on what it is for a sensible, changing thing to possess a form as a property (e.g., what it is for a painting to possess the property of being beautiful), his view on what it is for one form to possess a second form as a property (e.g., what it is for the form of Justice to possess the property of being beautiful), and his view on what it is for a form to possess itself as a property (e.g., what it is for the form of Beauty to possess the property of being beautiful). And as I will explain, this last view constitutes an historical precedent for my own account; for according to that view, a form's possession of itself as a property and that form's being self-identical both amount to one and the same phenomenon.

At this point, however, I hasten to add that, as I will explain in greater detail below, there are three salient reasons why my account and Plato's theory are not equivalent to each other. The *first* is that whereas according to Plato's theory, it is possible for one entity to possess a second entity as a property, according to my account,

it is not. Again, according to my account, given any entity, the only property that this entity is capable of possessing (and in fact possesses) is the more or less complex nature to which that entity is identical.

The *second* is that whereas Plato seems to believe that a predicate is meaningful only if it corresponds to its own genuine property, I do not. For example, according to Plato's theory, since the predicate 'is a Cubs fan' is meaningful, it must correspond to the property of being a Cubs fan. But as I will explain below, according to my view, a predicate can still be meaningful even without corresponding to its own genuine property in this way. Consider the predicate 'is a property that is possessed by all properties that do not possess themselves.' As I will explain below, even though this predicate is meaningful, it cannot correspond to its own genuine property, given that if such property existed, then since 1) either it would possess itself or else it would not do so, and 2) it would possess itself just in case it did not, that property both would and would not possess itself, which is absurd. As I will explain below, on my account, if the predicate 'is a Cubs fan' applies to a person, it does so because that person gets a whoosh of certain chemicals in his or her bloodstream on those rare occasions on which the Cubs manage to win a game. It is not because that person participates in the form of Cubs Fanhood. I will have more to say about the issue of which properties there are below.[24]

The *third* reason is that whereas Plato regards all properties as being non-spatial, I do not. In fact, as I will explain, I regard all of them as being spatial. At the same time, however, as I will also explain, the belief that all properties are spatial is logically independent of my account of property possession. For while my account is indeed

[24] For a discussion of semantic relations that obtain between predicates and properties with which I largely agree, see Armstrong (1978b).

incompatible with the claim that all properties are non-spatial, given that there are at least some spatial entities, my account is perfectly compatible with the claim that while all of the properties in the nature of any spatial entities are themselves spatial, all of the properties in the natures of whatever non-spatial entities exist are themselves non-spatial. Indeed, as I will explain, my account is even compatible with the claim that there are some properties that are parts of the natures of both spatial and non-spatial entities, assuming that it is possible for some properties to straddle the divide between the spatial and non-spatial realms in such a manner (which I highly doubt).

One last point on this topic prior to proceeding: Various commentators have long derided Plato's claim that the forms possess themselves as properties as being non-sensical. Indeed, as we will see, various attempts have been made to avoid attributing this claim to Plato in the first place, each attempt more desperate than the previous one. But as I will explain below, once we have dispensed with the implausible doctrine that all predicates correspond to genuine properties, and once the remaining properties have been brought down from Plato's heaven to earth, we can easily see the truth in Plato's central insight that all properties possess themselves. In fact, ironically enough, as I said above, we can see the truth of that insight even from an empirical point of view.

Some methodological points about the problem to be solved. I refer to the problem to be solved in this essay as the problem of property possession. It is the problem of analyzing what it is for an entity to possess a property.

While the problem of property possession has occasionally been singled out for discussion in its own right, more frequently it has been conflated with the problem of the

one over the many, or the problem of universals. But the two problems ought to be distinguished from each other; for as I said above, whereas the latter is the problem of what it is for two entities to possess the same property, the former is the problem of what it is for a single entity to possess a single property in the first place. As such, there is a sense in which the former is the more fundamental of the two problems; for the question of what it is for two entities to possess the same property simply does not arise if neither of those entities individually possesses that property in the first place. Still, I will return to discuss the problem of universals in greater detail in chapter four.

The problem of property possession is also sometimes conflated with a variety of problems having to do with predication, such as the problem of specifying the conditions under which a property can be truly predicated of an entity. I refer to this problem as the problem of predication. But this problem is also to be distinguished from the problem of property possession; for as I said above, whereas the predication of properties of entities is, in all cases, a mind-dependent phenomenon, the possession of properties by entities is, at least in some cases, a mind-independent one.[25] Indeed, whereas predication is something that we *do*, property possession is not, at least not in the same way. At the same time, however, property possession and predication are highly inter-related with each other, even on my account. And so I will also return to discuss the problem of predication in greater detail in chapter four.

Of course, in the meantime, once I have distinguished between the problem of property possession and the problem of predication, there are a variety of objections that one might raise against my project on purely methodological grounds. For example, one

[25] The possession of properties by entities is a mind-dependent phenomenon, of course, in those cases in which those entities are minds.

might object that once the problem of property possession has been distinguished from the problem of predication, it becomes clear that my competitors (i.e., the Externalists and Internalists) never were interested in the problem of property possession in the first place, but were interested instead in the problem of predication. But this objection is implausible. Here it is important to distinguish between the notion of a potential solution to the problem of property possession and the notion of that problem itself. Now, on the one hand, I grant that the solution I offer to the problem of property possession differs dramatically from the ones offered to it by my competitors; for as we will see below, whereas according to their views, it is possible for one entity to possess a second entity as a property, on my account this is not possible. But, on the other hand, it simply does not follow that since my competitors do not accept my solution to the problem of property possession, we must have begun with different conceptions of that problem in mind. Rather, it is simply that, from the very same starting point, we reached very different destinations. To see this point more clearly, note that while my formulation of the problem of property possession – which is, again, the problem of what it is for an *entity* to possess a property – leaves open the possibility that the entity and property in question turn out to be numerically identical to each other, it also leaves open the possibility that they are numerically distinct from one another, given that an entity *qua* entity may or may not be a property. Thus, it cannot be maintained that one somehow has to accept my solution to the problem of property possession if one is to accept my formulation of that problem itself. To be sure, one might insist that the problem my competitors originally set out to solve is not the problem of what it is for an entity to possess a property, but rather the problem of what it is for one entity to possess a second entity as a property.

But I simply fail to see any evidence to justify this objection – certainly none of my competitors have made this point in as explicit terms as these ones. Of course, at this point one might object that this is simply due to the fact that my competitors *implicitly* assume that it is obviously possible for one entity to possess a second entity as a property. But this is so much the worse for them, as this assumption is false. Moreover, even if I simply grant that my competitors originally were concerned with the problem of what it is for one entity to possess a second entity as a property, this will actually entail that they are ultimately concerned with the problem of property possession as I formulate it, given that my formulation is neutral with regard to the issue of whether the entity and property in question are identical to each other, and given that it is in the nature of the philosophical enterprise to be concerned with ever increasingly general problems about the ultimate nature of reality.

On the other hand, one might also object that even if my competitors are concerned with the problem of property possession, they are more concerned with the problem of predication. But this objection is also implausible, since I see no justification for it, either. First of all, as I explained above, as far as I am able to determine, my competitors are interested in the problem of what it is for an entity to possess a property. Second, as far as I am also able to determine, at least the majority of my competitors also agree that whereas predication is a mind-dependent phenomenon, property possession is not, at least not to the same extent. And third, as far as I am able to determine, my competitors also agree that since predication is a mind-dependent phenomenon, whereas property possession is not, at least not to the same extent, the problem of property possession is for this reason more fundamental than the problem of predication. But this

seems to suggest that they will actually be more concerned with the problem of property possession than with the problem of predication. To be sure, there is an old tradition of regarding predication as a mind-independent phenomenon. But this is just a semantic point. As I will understand the notion in this essay, predication is something that we do in the sense that it is a linguistic or mental practice.

Then again, one might even object that when all is said and done, there still remains some incommeasurability between my view and those of my competitors in the sense that the relation that, on my view, an entity bears to a property only if that property can be truly predicated of that entity is the relation that, on the views of my competitors, an entity bears to a property only if that entity possesses that property. The importance of this objection cannot be overstated, since if it is adequate, one might think that it entails that my critique of my competitors' views on property possession is, by my own lights, just a critique of their views on predication. But the objection is inadequate. On the one hand, there is a case to be made that the relation that, on my view, an entity bears to a property if that property can be truly predicated of that entity is the relation that, on the view of those competitors I call Internalists, an entity bears to a property if that entity possesses that property (though, strictly speaking, even this is not correct, given that there is a distinction to be drawn between the relations of parthood and proper parthood). But, on the other hand, I deny that the relation that, on my view, an entity bears to a property if that property can be truly predicated of that entity is the relation that, on the view of those competitors I call Externalists, an entity bears to a property if that entity possesses that property. Moreover, regarding the complaint that my critique of my competitors' views on property possession misses its mark, the following two points should be noted.

The first is that since I accept the principle that an entity possesses a property only if that property can be truly predicated of that entity, if I manage to show that my competitors' views on predication are flawed, I will have managed to show via modus tollens that, by my own lights, their views on property possession are also flawed. And the second is that since my competitors accept the principle that an entity possesses a property just in case that entity can be truly predicated of that entity, if I manage to show that my competitors' views on predication are flawed, I will have managed to show via modus ponens that, by their own lights, their views on property possession are flawed. Thus, the charge of incommeasurability fails. Furthermore, even if I simply grant that some incommeasurability remains, since, as we have seen, the views of my competitors are so frequently couched in terms of notions that are highly metaphorical in nature, my project can still be seen as an attempt to put forward a clear and precise account of the metaphysical underpinnings of the qualitativeness of entities that explains all of the phenomena thought to be explained by the views of my competitors, as well as some other phenomena besides them.

Finally, one might object that, despite whatever protestations I make to the contrary notwithstanding, I have but one real aim in this essay, and that is to expound upon and solve the problem of what it is for a relatively simple property to possess itself (e.g., what it is for the property of being red to be red.) But this objection is inadequate as well. To explain this point, I will engage in a brief discussion of the logic of discovery. The logic of justification will come soon enough. I originally set out to solve the problem of property possession, assuming in good faith that it is possible for one entity to possess a second entity as a property. Eventually I came to see that this

assumption is deeply mistaken for reasons I will explain. On the basis of this insight, I came to adopt a view according to which for an entity to possess a property is for that entity and that property to be numerically identical to each other. And I then came to see that this view has the following two implications. The first is that the one and only one property possessed by a relatively complex entity, such as a red, rubber ball, must itself be a relatively complex nature, containing within it a certain shape, size, mass, density, color, texture, and so forth. And the second is that relatively simple properties, such as the property of being red, must possess themselves. But it is not as if I somehow value the one implication over the other, or think that one of the two is more important. They are just opposite ends of one and the same continuum. Thus, it is a misrepresentation of my project to say that I set out to answer a question such as this: What is it for the property of being red to be red? Indeed, even I am willing to admit that this seems a rather perverse place from which to begin. The simple fact of the matter is that I let the unfolding argument concerning the problem of property possession take me where it would. To be sure, along the way, I came to see that this original problem gave rise to a new problem, which is the problem of what it is for a property to possess itself. But I also saw that this new problem has the very same solution as the original problem of property possession. For in both cases, property possession just is identity.

At this point, there is one remaining methodological question briefly to be discussed by way of conclusion, which is the question: What exactly does the problem of property possession demand when it demands an account of what it is for an entity to possess a property? To be sure, it demands more than just a necessarily true biconditional of the form ‘x possesses y as a property just in case…,” where the ellipses

are a place-holder for the specification of some condition. After all, a necessarily true biconditional by itself reveals, at most, a necessarily occurring correlation, and some correlations, even necessarily occurring ones, have a deeper explanation. Thus, what the problem of property possession demands is a statement of what x's possession of y as a property *is*, i.e., a statement of in what x's possession of y as a property consists. I will have more to say about this point below. But in the meantime, it is important to note that if x's possession of y as a property consists in the obtaining of a certain condition, then it will necessarily be the case that x possesses y as a property just in case that condition obtains. This point becomes important when we turn to examine Externalism and Internalism about property possession below; for there I will argue that since both views fail to provide a necessarily true biconditional that specifies the conditions under which x possesses y as a property, they both fail to provide what the problem of property possession demands.

Some methodological points about my solution to the problem. In this section, I provide answers to the following two questions. First, what are the analysandum and analysans of my analysis of property possession as identity? And second, what is it for the former to be analyzed as the latter in the first place? I will take the second question first.

According to my account, to claim that property possession is to be analyzed as identity is to claim that property possession and identity are identical to each other. In other words, it is to claim that there is no more of a distinction to be drawn between them than there is to be drawn between the Morning Star and the Evening Star. It is to claim

that the distinction to be drawn between them is a merely conceptual one, as opposed to a fully-fledged real distinction. Thus, in advocating my account, I am not claiming of one thing that it is identical to a second. Rather, I am claiming that property possession and identity are one and the same thing. Occasionally, some have objected that it sounds strange to claim that something can be identical to identity itself. But putting aside for the moment the issue of exactly what identity is (an issue that I will address below), obviously identity is identical to something. Otherwise, there would be no such thing as it, given the assumption that all entities are self-identical. After all, if identity were not identical with identity, it would not be identical with anything at all.

Since my thesis is that property possession is identical with identity, that thesis obviously amounts to an informative statement of identity (i.e., a statement of the form 'a is b.'), as opposed to an uninformative one (i.e., a statement of the form 'a is a.'). In his *Being Qua Being*, Butchvarov draws a distinction between what he calls formal and material statements of identity. According to him, whereas formal statements of identity have the form 'a is a,' material statements of identity have the form 'a is b.'[26] Given this distinction, the claim that property possession is identical to identity is obviously a material statement of identity. So the question arises of how to account for the truth of such statements. Here Butchvarov and I part ways. To account for the truth of material statements of identity, he draws a further distinction between what he calls objects and entities. On the one hand, "[a]n object is anything that may be referred to, singled out for our attention, whether in perception, thought, or discourse; it is anything that may be classified, subjected to conceptualization" (1979, p. 45). On the other hand, "[i]f the concepts of identity and existence are applicable to it, that is, if it exists and if it is

[26] See his (1979, pp. 10-11).

identical with some other objects, then it is an entity" (1979, p. 45). Given this distinction, Butchvarov's solution to the problem of how to account for the truth of material statements of identity is as follows:

> [W]e can say, without paradox, that material identity statements are both about objects and about entities. If true, such a statement is about the entity that is each of the two objects the statement is also about. And it is about objects because it asserts of two objects that they are one and the same entity. Unlike a formal identity statement, a material identity statement is about two objects. And, if true, it is about one entity (1979, p. 45).

It is important to note that according to Butchvarov, the statement of identity crucially involved in this analysis of the truth-makers for material statements of identity is of the formal variety.[27] But even so, there is still a problem with this view; for it is difficult to see how a material statement of identity could ever turn out to be true on it. After all, it is difficult to see how an entity could be numerically identical to two objects, when those objects themselves are numerically distinct from each other.

How are we to account for the truth of material statements of identity, if Butchvarov's analysis fails? According to my view, material statements of identity only appear to be about numerically distinct entities. At the same time, however, the issue of how to explain away this appearance falls to the philosophy of language or mind. For this reason, since a proper discussion of this issue would take us too far afield of our present concerns, I simply set it aside.

Since my analysis implies that property possession is identical with identity, the analysis obviously does not amount to a decompositional one. At the same time, however, it should be noted that my account is perfectly compatible with the claim that property possession and identity can be decompositionally analyzed when taken

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[27] See his (1979, pp. 45-46).

individually. For example, it may well turn out that identity can be analyzed as the transitive, reflexive and symmetrical relation that, necessarily, any given entity bears to itself and nothing else. And it may well be that property possession can be analyzed as the relation that x bears to y only if y is a property that can be truly predicated of x. In that case, the content of my thesis will be that the relation that x bears to y only if y is a property that can be truly predicated of x and the transitive, reflexive and symmetrical relation that any given x bears just to itself are one and the same relation. But, on the other hand, if property possession and identity cannot be analyzed in this manner, this will not adversely affect my thesis itself. For my thesis is that property possession and identity are one and the same thing, regardless of whatever exactly they turn out to be.

In claiming that property possession and identity are identical to each other, I do not take myself to be advocating an asymmetric reduction of the one to the other. Nor do I take myself to be advocating an elimination of either of them, given that I believe in the existence of them both. Of course, one might object that since my identification of property possession with identity requires the stripping away of some (or all) of the essential traits or features of the former, I actually am an eliminativist about property possession, as it turns out. But as I will explain below, my identification of property possession with identity does not require the stripping away of any of the essential traits or features of property possession. Nor, as I will explain, does it require the stripping away of any of the essential traits or features of identity. So I am not an eliminativist about it, either.

In claiming that property possession is identical to identity, am I doing descriptive metaphysics, revisionary metaphysics, both or neither? The distinction between

descriptive and revisionary metaphysics is due to Strawson. He writes: "Metaphysics has often been revisionary, and less often descriptive. Descriptive metaphysics is content to describe the actual structure of our thought about the world, revisionary metaphysics is concerned to produce a structure" (1959, p. 9). Given this statement, it seems obvious that I am not doing what we might call purely descriptive metaphysics. After all, if one's view on property possession is a view in descriptive metaphysics alone, presumably that view will have the following two implications that I reject. The *first* is that since there is a real distinction to be drawn between the 'is' of predication and the 'is' of identity, there must be a correspondingly real distinction to be drawn between property possession and identity. But as I will explain in chapter four, this is a fallacy. On the one hand, as I will explain, I grant that there is, of course, a real distinction to be drawn in language between the 'is' of predication and the 'is' of identity, even on my account. For as I will explain, according to my account, whereas the 'is' of predication corresponds to the relation of parthood in the sense that y is a property that can be truly predicated of x only if y is a part of the nature of x, the 'is' of identity corresponds to the relation of non-proper parthood in the sense that if y is identical to x, then x is a non-proper part of y. But, on the other hand, as I will also explain, even though there is a real distinction to be drawn in language between the 'is' of predication and the 'is' of identity, this does not entail that there is a real distinction to be drawn in extra-linguistic reality between property possession and identity. Indeed, as I will explain, if the distinction between the 'is' of predication and the 'is' of identity maps onto any real distinction in extra-linguistic reality at all, presumably it would only map onto the distinction between the relation that y bears to x just in case y can be truly predicated of x and the relation that y bears to x

just in case y is identical to x. But I have already indicated that the relation that an entity bears to a property just in case that property can be truly predicated of that entity is not the same as the relation that an entity bears to a property just in case that entity possesses that property. So even if we simply grant that the real distinction to be drawn in language between the 'is' of predication and the 'is' of identity entails that there is some real distinction to be drawn in extra-linguistic reality, presumably it would only entail that there is a distinction to be drawn between predication and identity, not that there is one to be drawn between property possession and identity.

The *second* implication is that since there is a subject-predicate structure in ordinary language and predicate logic, there is a real distinction to be drawn between property possession and identity. But as I will explain in chapter four, this is also a fallacy. In the meantime, it is interesting to note in passing that while the structure of predicate logic seems to imply that no property can ever be truly predicated of itself, this is not suggested by the structure of ordinary language. For while 'Fa' seems to suggest that it amounts to a kind of category mistake to identify *F* with *a*, ordinary language seems to regard sentences of the form 'Beauty is beautiful' as, in the very least, perfectly grammatical. This point merits further emphasis. It has sometimes been objected that it cannot be the case that for an entity to possess a property is for that entity and that property to be numerically identical, since there is a distinction to be drawn in logic between constants for individuals (e.g., 'a', 'b', 'c', etc.) and constants for properties (e.g., 'F', 'G', 'H', etc.). But this objection has the matter completely backwards. This logic convention is based on a substantive metaphysical presupposition that entities cannot be identical to the properties that they possess. But surely we don't want to allow

this convention to settle the matter; for even though ‘Fa’ suggests that F and *a* cannot be identical to each other, this doesn’t necessarily make it so.

On the other hand, I maintain that even though I am not doing purely descriptive metaphysics, I am not doing purely revisionary metaphysics, either; for as we will see in chapter three, the argument for my account of property possession has aspects of both descriptive and revisionary metaphysics. On the descriptive side, I claim that if x possesses a property, then that property can be truly predicated of that entity. For example, I claim that if x possesses the property of being red, then the property of being red can be truly predicated of x. That is to say, I claim that if x possesses the property of being red, then x is red. But on the revisionary side, I also claim that if x is numerically distinct from the property of being red, then since it cannot be the case that x is red in virtue of the obtaining of a relation between x and that property, regardless of which relation this is assumed to be, if x really is to be red in the end, x must be identical to that property.

I turn now to the question: What are the analysandum and analysans of my analysis of property possession as identity? The first thing to be said is that in analyzing property possession as identity, I am not analyzing concepts or meanings. After all, I do not regard property possession or identity as being mental phenomena, and I certainly do not regard them as being mind-dependent ones. But if property possession and identity are not mental or mind-dependent phenomena, what exactly are they? I will begin with identity.

While identity is usually defined as the transitive, symmetrical and reflexive relation that, necessarily, any given entity bears to itself and nothing else, there is reason

to be skeptical of this definition. On the one hand, I grant that if identity is a relation in the first place, then it is the relation that fits the description given by the definition. After all, it seems obvious that 1) everything is identical to itself, 2) nothing is identical to anything else, 3) if x is identical to y, then y is identical to x, and 4) if x is identical to y and y is identical to z, then x is identical to z. But, on the other hand, I am doubtful that identity is a relation in the first place. First of all, it seems in some sense possible for there to exist at least one entity in a world in which there are no relations at all, which implies that it is possible for identity not to be a relation, given that all entities are self-identical. Second, I find myself very hard pressed to say that I am directly acquainted with the vast majority of relations that various philosophers claim to exist, including identity. In this particular case, my concern may be assuaged somewhat by the fact that I do seem to be acquainted on some occasions with x's spatial overlap of y. But even then, I am still more comfortable with the claim that I am acquainted with x's overlapping of y than I am with the claim that I am acquainted with the obtaining of the relation of overlap between x and y. Perhaps one will insist that this is a distinction without a difference, and perhaps they are right. But even if they are, my concern is only partially assuaged, given that I deny that x and y are non-proper parts of each other just in case they are numerically identical to one another. After all, if it is not the case that x and y are non-proper parts of each other just in case they are numerically identical to one another, then acquaintance with the relation of overlap will not automatically amount to acquaintance with the relation of identity. Consequently, while I will often speak of property possession and identity as relations (especially in chapter three), I reserve the right to insist in the end that all of this talk is just so much convenient shorthand. After all, as I

said above, my thesis by itself makes no claim about what property possession and identity are, individually speaking. But if identity is not a relation, then what exactly could it be?

In his *New Foundations of Ontology*, Gustav Bergmann offers a novel analysis of identity. His analysis begins with the notion of a circumstance. According to him, a circumstance is a collection of entities that does not require what he calls a maker (such as exemplification) or a function to bring the elements of that collection together with each other. If x and y exist, then the circumstance of x and y automatically exists, regardless of whatever other relations obtain or fail to obtain between x and y. Next, Bergmann defines the notion of a diad. According to him, a diad is a circumstance whose elements are brutely numerically distinct from each other. In other words, a diad is a circumstance whose elements are numerically distinct from each other in such a way that their being numerically distinct from each other does not require some further principle of individuation, or something that somehow makes them numerically distinct from each other. Then he defines identity. According to him, identity is just the negation of a diad. Obviously, justice cannot be done to the intricate nature of Bergmann's view here. Nevertheless, it is easy for me to state why I find his analysis of identity unacceptable. On the one hand, I find the claim that various entities can be brutely numerically distinct from each other without requiring some further principle of individuation to be very plausible. Indeed, in chapter five, I will offer a solution to what I call the problem of the principle of individuation that is based on something very similar to this claim. But, on the other hand, I reject the idea that identity involves negation, since I reject the idea that negation and the other logical connectives are a mind-independent part of the world, as

Bergmann would have it. One should not attempt simply to read off the structure of metaphysics from the structure or ordinary language or thought. But this is exactly what one does when one claims that the world is a world of facts or states of affairs, replete with the logical connectives, such as negation, conjunction, disjunction and the rest. In my opinion, the world is a world not of facts or states of affairs, but of things. As we will see below, according to my account, it is a world of things that are inherently qualitative. Indeed, as we will see, according to my account, it is a world of such things alone.

We sometimes speak of x's being identical to y, which seems to suggest that identity is a relation. But we also sometimes speak of *the identity of an entity*, which seems to suggest that identity is something else entirely. Along these lines, one possible proposal is the one that eschew the notion of identity *qua* relation altogether, and replaces it with the notion of the identity of an entity. How, then, is the notion of the identity of an entity to be understood? I propose that the identity of an entity be defined as what I call the nature of that entity. On this proposal, there really would be no such thing as identity *simpliciter*; there would only be the identity of an entity, which in turn would be that entity's nature. One advantage that this proposal has over the one according to which identity is a relation is that whereas the latter proposal seems strongly to suggest that identity is a universal (i.e., a universal relation), the former one does not, at least not to the same extent. It is important to note that if this proposal is adopted, there really would be no such things as property possession *simpliciter*, either. Instead, on the proposal, my account of property possession as identity becomes tantamount to the claim that the property possessed by an entity amounts to the identity of that entity, which in turn amounts to that entity's nature. And that, of course, is exactly what I want. Of

course, at this point one might object that by claiming that the identity of an entity is identical to the nature of that entity, I am bringing identity *qua* relation in through the back door. This may be. Indeed, it may be that we cannot make do without the notion of identity as a relation, in which case I am content to tailor my thesis accordingly. Still, I suspect that the intuition that we cannot make do without the notion of identity as a relation is driven by the assumption that the structure of ordinary language and thought maps neatly onto the structure of metaphysics. True enough, the structure of the claim 'x is identical to y' seems to suggest that if the claim is true, its truth-maker will consist of the obtaining of a relation between an entity and itself. But I hold out hope that sense can be made of the notion that the truth-maker of that claim consists solely of the relevant entity itself.

Finally, I will make two points about property possession, by way of conclusion. The first is that while the proposal regarding identity above hopefully makes clear how I believe the notion of property possession ultimately is to be understood, my account of property possession is perfectly compatible with the claim that property possession can be at least partially analyzed as the relation that an entity bears to a property only if that property can be truly predicated of that entity. But the second point is that my account is not compatible with the claim that property possession is the relation that an entity bears to a property just in case that property can be truly predicated of that entity, given that there are a variety of entities of which more than one property can be truly predicated. To be sure, some will find this point objectionable. But, as I will explain, it does follow on my account that if a property can be truly predicated of an entity, then that property is a part of the nature of that entity. And as I will also argue, since my account licenses the

claim that a property can be truly predicated of an entity only if that property is a part of the nature of that entity, one has no good reason to reject my account on the basis of the fact that it does not license the claim that if a property can be truly predicated of an entity, then that entity bears the relation of property possession to that property, given that we are at such a high level of generality and abstraction.

The plan. In this section, I offer the plan of the defense of my account of property possession as identity.

In chapter two, I argue against Externalism and Internalism about property possession. To refute these two views is to refute the overwhelming majority of alternatives to my account. Against Internalism, I argue that it fails to provide a necessarily true sufficient condition for property possession. That is to say, I argue that it is false, since it is not necessarily the case that if a property is internal to an entity (in the manner described in that chapter), then that entity automatically possesses that property as one of its own. I then consider Armstrong's argument that Externalism is false, since it fails to provide a necessarily true necessary condition for property possession. I contend that while this argument succeeds in refuting some versions of Externalism, it does not succeed in refuting them all. Consequently, I offer an alternative argument against Externalism in general. According to it, whereas Externalism implies that no entity ever possesses any property essentially, that claim is false.

In the second chapter, I also examine two views that I regard as hybrids of Externalism and Internalism. The first is the view of Armstrong, which I regard as an attempt to provide both an Externalist and an Internalist analysis of property possession

for one and the same class of entities. The second is the view of Zalta, which I regard as an attempt to provide an Externalist analysis of property possession for one class of entities and an Internalist analysis of property possession for another (where those two classes are mutually exclusive of each other). Against the former view, I argue that it is actually incoherent. And against the latter one, I argue that it inherits all of the problems that beset Externalism and Internalism in general.

Finally, I examine Donald Baxter's recent account of property possession as what he calls partial identity. Out of the wreckage of that account I salvage some important lessons to learn if one wants to claim that if x possesses y as a property, then x and y are numerically identical to each other.

In chapter three, I defend the premises of the following argument. Property possession is a relation. If property possession is a relation, then either it is the relation of identity, or else it is some relation other than identity. Now if property possession is some relation other than identity, then there is at least one entity that possesses a second entity as a property. But it is not possible for one entity to possess a second entity as a property. Thus, property possession and identity are one and the same relation.

In chapter four, I define what I call the nature of an entity. I argue for the truth of the view according to which there is nothing more to any given entity than the nature of that entity. And I show that by utilizing this view, I can rebut a wide variety of objections to my account of property possession as identity.

And, finally, in chapter five, I examine an ontological pay-off of my account of property possession as identity, which is that it provides for a once-and-for-all refutation of the Substratum Theory of substance.

In the remainder of this section, I will respond to some objections to my account that are based on various intuitions concerning the nature of properties.

Properties. There are a wide variety of objections one might raise an account of property possession such as mine. Some of these will be based on various intuitions concerning the nature of the relations of property possession and identity. (I will respond to these objections in chapter four.) But others will be based on various intuitions concerning the nature of properties. And many of these will be based on some implausible theory of properties or other. I will respond to these objections in this section. However, there are two reasons why I do not undertake a comprehensive defense of the theory of properties I favor here. The first is that there is simply insufficient space in which to do so. Indeed, as will become clear, a proper defense of that theory would require an essay of its own. And the second is that, as will also become clear, my account of property possession is actually compatible with a wide variety of theories of properties other than my own. Consequently, one cannot reject my account on the basis of one's rejection of my theory.

Are there such things as properties? When it comes to the issue of properties, obviously one of the first questions to be asked is: Are there such things as them? Not surprisingly, I answer this question in the affirmative. Indeed, there would be very little point in writing an essay on property possession if there were no such things as properties.

The *first* premise in my argument that there are such things as properties is that there is at least one entity that satisfies at least one predicate. For example, a red, rubber ball satisfies the predicate 'is red.' I take this premise to be obviously true. Indeed, I take it to be obviously true that, given any entity whatsoever, that entity satisfies a vast, if not infinite, number of predicates. Still, the claim that there is at least one entity that satisfies at least one predicate is all that is required for the sake of the present argument. Prior to proceeding, a point of terminology: An entity satisfies a predicate just in case that predicate applies to that entity. So, for example, since a red, rubber ball satisfies the predicate 'is red,' that predicate applies to that entity.

The *second* premise of my argument is that if an entity satisfies a predicate, then there is at least one property that can be truly predicated of that entity, which grounds the applicability of that predicate to that entity. For example, since a red, rubber ball satisfies the predicate 'is red,' we can truly predicate at least one property of that ball. In this particular case, the property we can truly predicate of the ball that grounds the applicability of the predicate 'is red' to the ball is the property of being red. In other cases, however, as we will soon see, the situation becomes a bit more complex.

Prior to proceeding, it should be noted what this second premise does and does not imply. On the one hand, it implies that if an entity satisfies a predicate, then we can truly predicate some property or other of that entity. But, on the other hand, it does not imply that if an entity satisfies a predicate, then we can truly predicate of that entity the property that seems naturally to correspond to that predicate; for, as I will explain below, not every meaningful predicate corresponds to its own genuine property in such a way that there is a one-to-one correspondence between actual (or even possible) meaningful

predicates and genuine properties. For example, as I will explain, even though I regard the predicate ‘is a Cubs fan’ as a perfectly meaningful one, I do not believe that it correspond to its own genuine property, since I do not believe that there is such a thing as the property of being a Cubs fan. If a person satisfies the predicate ‘is a Cubs fan,’ presumably this is because he or she gets a whoosh of certain chemicals in his or her bloodstream on those rare occasions on which the Cubs actually manage to win a game. These chemicals themselves are nothing but bundles of properties, and they are the ones that ground the applicability of the predicate ‘is a Cubs fan’ to that person. It is not because he or she participates in Cubs Fanhood.

It should also be noted that even though I reject the claim that an entity satisfies a predicate only if we can truly predicate of that entity the property that seems naturally to correspond to that predicate, I actually accept the claim that if a property can be truly predicated of an entity, then that entity will satisfy the predicate to which that property seems naturally to correspond. In cases in which that predicate does not yet exist, it may have to be created.

At this point, we can conclude from the preceding two premises that there are such things as properties. Consider the case of the red, rubber ball once again. That ball satisfies a number of predicates, including the predicate ‘is red.’ Since this entity satisfies this predicate, we can truly predicate at least one property of it. For example, we can truly predicate of it the property of being red. It does not matter for present purposes whether this property is assumed to be a particular, or whether it is assumed instead to be a universal. Since there is such a thing as the property of being red that can be truly

predicated of the red, rubber ball, it follows that there are such things as properties. At least some properties exist.

Of course, there have been a variety of property-skeptics over time, and there are a variety of objections that one might raise against the preceding argument. First of all, one might object that the red, rubber ball can satisfy the predicate 'is red' without there being anything as substantive as the property of being red that can be truly predicated of it. But if one grants that the ball satisfies the predicate 'is red,' I will want to know what it is in virtue of which that ball satisfies that predicate in the first place. Since 'nothing' does not seem to be an adequate answer to my query, there must be something in virtue of which that ball satisfies that predicate. But this something is a something, i.e., it exists. And so while this is not yet to say that this something is a property, in what follows let us simply refer to it as the redness of the red, rubber ball.

On the other hand, even if one grants that there is such a thing as the redness of the red, rubber ball, one might also object that it is nothing distinct from that ball. But this objection is also implausible. Since the ball satisfies not only the predicate 'is red,' but also a variety of other predicates, such as the predicate 'is round,' if what we are calling the redness of the red, rubber ball is not something distinct from that ball, then presumably neither is what we would call the roundness of that ball. But in that case, that redness, that roundness and that ball would all be numerically identical to each other. (After all, if x is nothing distinct from z, and if y is also nothing distinct from z, then x, y and z will all be identical.) But that redness, that roundness and that ball cannot all be numerically identical to each other; for in the very least, that ball could still be round even if it were painted blue.

Finally, even if one grants that there is such a thing as the redness of the red, rubber ball, and that it is something that is distinct from the ball, one might still object that it is still not a property. But this objection is implausible as well. The redness of the red, rubber ball is a respect in which that ball resembles itself and other red things. Traditionally such respects have been classified as properties. So, unless the debate over whether or not there are such things as properties is to degenerate into a merely terminological one, some substantive reason why such respects cannot be properties must be given. Certainly some have suggested that such respects cannot be properties, since whereas properties are abstract, non-spatial and lacking in crystal-clear individuation-conditions, such respects are concrete, spatial and clearly individuated from each other. But to make this suggestion is betray confusion of the relatively modest claim that there are such things as properties with some other, more controversial claim, such as the one according to which all properties are universals.

Many, if not all, of the preceding objections are associated with a view sometimes referred to as Ostrich Nominalism. It should be noted that this view is not equivalent to my own, as one might think. On the one hand, I grant that according to both Ostrich Nominalism and my own account, if x is red, then nothing is needed to account for the redness of x other than x itself. But, on the other hand, if x is red, then whereas Ostrich Nominalism identifies x with something other than a property, I do not. After all, according to my account, if x possesses the property of being red, then x just is that property. And in that sense, according to my account, x is red intrinsically. Of course, the Ostrich Nominalist may object that various entities can still be intrinsically qualitative

on their view. But it is difficult to see how on that view anything could be qualitative at all, much less intrinsically so, given that the view denies the existence of properties.

Given that there are such things as properties, there are two additional results that can easily be derived at this point, which should be noted. The *first* is that, given any entity, there is at least one property that can be truly predicated of that entity. First of all, it seems plausible to suppose that, given any entity, there is at least one predicate that the entity satisfies. Second, as I have argued, if an entity satisfies a predicate, then there is at least one property that can be truly predicated of it. Again, it is not necessarily the case that if an entity satisfies a predicate, then we can truly predicate of that entity the property that seems naturally to correspond to that predicate. But if any entity satisfies a predicate, and if an entity satisfies a predicate only if we can truly predicate a property of that entity, then it follows that, given any entity, we can truly predicate at least one property of that entity.

The *second* implication is that, given any entity, that entity *possesses* at least one property. First of all, as we have seen, given any entity, there is at least one property that can be truly predicated of that entity. Second, it seems plausible to suppose that if a property can be truly predicated of an entity, then that entity possesses at least one property, which is the basis of that predication. Now it is important to note that the claim that a property can be truly predicated of an entity only if that entity possesses a property does not entail that a property can be truly predicated of an entity only if that entity possesses *that* property. For the claim that a property can be truly predicated of an entity only if that entity possesses a property is perfectly compatible with the claim that a property can be truly predicated of an entity only if that entity possesses a nature of

which that property is a part. This is a point to which I will return below. But in the meantime, let us note that if any entity is such that we can truly predicate at least one property of it, and if we can truly predicate a property of an entity only if that entity possesses a property, then it follows that, given any entity, that entity possesses at least one property.

Which properties are there? Since there are such things as properties, the next question to be asked is: Which ones are there? According to one traditional view, every meaningful predicate corresponds to its own genuine property in such a way that there is a one-to-one correspondence between actual (or possible) meaningful predicates and genuine properties. For example, according to this view, just as the predicate 'is red' corresponds to the property of being red, the predicate 'is a Cubs fan' corresponds to the property of being a Cubs fan, the predicate 'is a nice guy' corresponds to the property of being a nice guy, the predicate 'is a mathematically-gifted unicorn' corresponds to the property of being a mathematically-gifted unicorn, and so forth. But this view is implausible. Consider the predicate 'is a property that is possessed by all properties that do not possess themselves.' While this predicate is surely meaningful, it cannot correspond to its own genuine property; for if such a property existed then since 1) either it would possess itself or else not, and 2) it would possess itself just in case it did not do so, that property both would and would not possess itself, which is absurd.

If not every meaningful predicate corresponds to its own genuine property, then, which ones do? In contemporary discussions of the issue, it is standard by now to draw a distinction between so-called robust and austere conceptions of properties. But I am

hesitant to endorse this distinction for several reasons. First of all, the distinction is usually founded upon a distinction between natural and unnatural properties, i.e., whereas austere conceptions only commit themselves to the existence of natural properties, robust conceptions commit themselves to the existence of both natural and non-natural properties. But I have never seen a clear or convincing analysis of what it is for something to be natural. Second, without such an analysis, the distinction between robust and austere conceptions becomes vague. Just how robust can the most robust conception of properties be? Is the most robust conception possible the one according to which every meaningful predicate corresponds to its own genuine property? Or is it the one according to which a predicate corresponds to a property only if that property can be instantiated? On the other hand, according to a conception of properties, exactly how many predicates need to correspond to genuine properties, if that conception is to be a robust one? Is a bare majority sufficient? If so, how many predicates are there in the first place? Do only actual predicates count? Or are all possible predicates relevant? Finally, just how austere can a conception of properties be and yet still be viable? Presumably the one according to which just one predicate corresponds to a genuine property is unworkable. But just how many more properties would need to be added to make it work? Thankfully, none of these questions need to be answered here. Since I reject the claim that every meaningful predicate corresponds to its own genuine property, I do not accept the most robust conception possible. But while the theory of properties I accept may well be classified as an austere one, my account of property possession does not require me to accept it, as we will see below.

Objections and replies. In this section, I respond to a variety of objections one might raise against my account that are based on various intuitions concerning the nature of properties.

The *first* objection is as follows. There are at least some spatial entities. Now if there are at least some spatial entities, then if my account of property possession is true, there will be at least some spatial properties. But all properties are non-spatial. Thus, my account is false. Now the argument is obviously valid. But it is unsound. On the one hand, I grant that if all properties are non-spatial, then since there are at least some spatial entities, my account will indeed be false. After all, if there exists even just one spatial entity, then according to my account, since that entity will be identical to a property, there will be at least one spatial property. But, on the other hand, I deny that all properties are non-spatial. In fact, I believe that none of them are.

One of the earliest proponents of the view that all properties are non-spatial is Plato.[28] As we saw in one of the passages quoted at the outset of the essay, according to Aristotle, Plato's philosophy is a combination of the influence of Heraclitus and Socrates. On the one had, Plato agrees with the latter in thinking that there are some things that can be defined. But, on the other hand, he believed that sensible, changing things cannot be defined, since agreed with the former in thinking that (as he puts it in the *Timaeus*) those things are continuously coming to be and passing away in such a manner that they never really are. Thus, according to Plato, things amenable to definition are somehow separate from sensible, changing things, and he referred to these things amenable to definition as the forms. Now I grant that Plato's argument is valid, though there remains the issue of

[28] As I will explain in the following chapter, on my interpretation of Plato's theory of forms, all forms are properties. They are properties possessed by themselves.

exactly what *separation* amounts to in this context.[29] But I deny that it is sound, since I deny the truth of the Heraclitean premise. Instead, I take it as another datum of metaphysics that there are at least some entities that are ontologically stable enough to satisfy various predicates, e.g., 'is red', 'is round', and so forth. But if there are entities that are stable at least to this extent, it follows that they are stable enough to be defined (which, of course, is not to say that they are actually amenable to definition).

As far as I am able to determine, the strongest contemporary argument for the claim that all properties are non-spatial is the one offered by Evan Fales. He writes:

> We do not wish to say that universals exist in space and time. If they did so exist, it would obviously be "as" their instances that they existed. Such instances can be created and destroyed; they can change their location. But these vicissitudes cannot be shared by the things which these instances have in common; for it is precisely in respect of their temporal duration and spatial location, that instances differ. And if universals are in space and time, then spatiotemporal relations characterize universals. Moreover, it will not do to say that spatial and temporal properties exist in space and time, for if they did so, they would themselves have spatial and temporal properties. It will not do to say that the property enduring for one second has the property of enduring for one second, nor of enduring for any other period of time. So universals – even physical properties – are not in themselves in space and time.[30]

It seems natural to regard Fales as offering three different arguments for his conclusion in the passage quoted. According to the *first*, since instances of properties are capable of being created and destroyed, and are capable of changing their locations, whereas properties themselves are not, properties are non-spatial (given that they could be spatial in the first place only if they existed as their instances). But this argument is inadequate. First of all, it presupposes that properties are universals.[31] Second, if we assume that

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[29] This issue is discussed in chapter two.

[30] See his (1990, pp. 189-190).

[31] This is what is implied by the claim that properties are shared in common.

instances of properties completely overlap their spatiotemporal locations, then two instances of properties could still be individuated from each other in virtue of their locations, even if all properties have the very same spatiotemporal locations as the instances of which they are components.

According to Fales' second argument, since properties can be spatial only if spatiotemporal relations, then since such relations do not characterize them, properties are non-spatial. Now, on the one hand, I grant that there is indeed a problem with the claim that universals can bear spatial relations to each other and to themselves. For example, as Ehring has argued, if we assume that one universal exists simultaneously at both the North and South Poles of the globe, then that universal will be both north and not north of itself.[32] But, on the other hand, I deny that this problem besets the view that tropes can bear such relations to each other. After all, no one trope will be able to exist simultaneously at both the North and South Poles (putting aside the worry that time travel is possible). Thus, since this argument also presupposes that properties are universals, it too is inadequate.

Fales' third argument is this: All properties are spatial only if spatial properties themselves have spatial and temporal properties. And all spatial properties have spatial and temporal properties only if the property of enduring for one second has spatial and temporal properties. But it will not do to say that the property of enduring for one second endures for just one second. So properties are non-spatial. But there are two reasons why this argument is inadequate as well. The *first* is that even if it will not do to say that the universal of enduring for one second endures for one second (provided that as one instance of this universal ceases to exist, another continues to do so), it is not at all clear

[32] See his (2002).

why it will not do to say that a particular property of enduring for one second can endure only for that amount of time. Indeed, if the trope theorist claims that if there is some object that exists for only one instant, and if that object possesses a particular instance of the property of existing for one instant (i.e., a trope of existing for only one instant), then unless that theorist wishes to claim that when the object goes out of existence, that trope "jumps" to another object, presumably that theorist is committed to the claim that the trope also exists for only one instant. On the other hand, perhaps Fales' judgment is based on the claim that properties do not possess themselves. But, as I will argue below, that claim is false. The *second* reason is that it simply does not follow that if all properties are spatial, then the property of enduring for one second has spatial and temporal properties. After all, the claim that all properties are spatial is perfectly compatible with the claim that there is no such thing as the property of existing for one second in the first place.

It is interesting to note in passing that, despite Fales' insistence that properties are non-spatial, he nevertheless insists that they are somehow "injected" into space-time via the relation of instantiation. He writes:

> Instantiation, I wish to suggest, is in this sense a formal relation. In fact, in the case of physical particulars, it is the very relation previously mentioned between physical universals and identifiable space-time locations. Where such a relation obtains, we have a material particular. Universals "under the aspect" of space and time – that is in union with an anonymous spatial and temporal location "become" individual, distinguishable instances or tokens. They "become" universals "in" particular things.[33]

But there are two problems with the view expressed in this passage. The first is that if we claim that the relation of instantiation obtains between properties and space-time locations, which this view seems to do, then whereas this suggests that those properties

[33] See his (1990, p. 191).

are possessed by those locations themselves, as opposed to the material objects at those locations, presumably Fales wishes to claim just the opposite. Perhaps to combat this, he will assert that if the relation of instantiation obtains between a property and a space-time location, then this property will be possessed by the objects that overlap that location. But while this assertion entails that the physical universe as a whole will possess absolutely all of the properties that are tethered by the relation of instantiation to any space-time location contained within the universe, surely the universe does not possess all of the properties contained within it in this manner. The second problem is that, despite Fales' attempt to explain the point, it really is quite difficult to see exactly what to make of the claim that while the properties possessed by spatial objects are *in* those objects, those properties themselves are non-spatial. If even some of the properties possessed by a spatial entity are themselves non-spatial, then that entity would be required somehow to straddle the divide between the spatial and non-spatial realms – with one foot in the one realm and the other foot in the other, as it were. But it seems much more plausible simply to assume that whereas all of the properties in the nature of any spatial entity are themselves spatial, all of the properties in the nature of whatever non-spatial entities exist are themselves non-spatial. In other words, it seems much more plausible to advocate a strict segregationism about spatial and non-spatial properties, assuming that non-spatial properties exist in the first place.

The *second* objection to my account that is based on intuitions concerning the nature of properties is this: Even though not all properties are non-spatial, some of them are. But if even some properties are non-spatial, then my account of property possession is false. Thus, my account is false. Now this argument is also obviously valid. But it too

is unsound; for my account is perfectly compatible with the claim that whereas all of the properties in the nature of any spatial entity are themselves spatial, all of the properties in the nature of whatever non-spatial entities exist are themselves non-spatial. Indeed, my account is compatible with the claim that that there are even some properties that are simultaneously part of the natures of both spatial and non-spatial entities.[34]

The *third* objection is this. All properties are universals. But if all properties are universals, then my account of property possession is false. Thus, that account is false.[35] Now the argument is obviously valid. But it is unsound; for its second premise is false, as long as universals are defined in a certain way way. At the same time, however, I will defer my argument that this premise is false until chapter four. More needs to be said about my account first.

The *fourth* objection is as follows. No properties possess properties. But if no properties possess properties, then my account is false. Thus, that account is false. Now this argument is valid. But it too is unsound. On the one hand, I grant that the second premise of the objection is true. After all, according to my account, given any property, that property possesses at least one property. Indeed, according to my account, given any property, that property possesses one and only one property, namely, itself. But, on the other hand, I insist that the first premise of the objection is false. After all, it seems plausible on grounds independent of my account to claim that, given any property, it possesses some property or other (though not necessarily itself). First of all, it seems plausible to claim that, given any property, it satisfies at least one predicate. Second, it also seems plausible to claim that if an entity satisfies at least one predicate, then at least

[34] I would like to thank Evan Fales for pointing this out to me.

[35] This argument was raised by David Armstrong in personal correspondence.

one property can be truly predicated of that entity. And third, it seems plausible to claim that if at least one property can be truly predicated of an entity, then that entity possesses at least one property. Given these three claims, however, it follows that all properties possess properties. In other words, if the analogous argument seemed plausible above, where it established that every entity possesses a property, it is difficult to see why the present argument is implausible now, when it establishes that every property possesses a property. Indeed, if the argument that all entities possess properties is sound, this straightforwardly entails that all properties possess properties, given that the set of all properties is a sub-set of the set of all entities (which is not to say that it is a proper sub-set).

Of course, at this point even if one grants that all properties possess properties, one might still object that no property possesses itself. Indeed, one might even go so far as to insist that the claim that a property possesses itself somehow involves a category-mistake. But this objection is also implausible. To take but one example among many, I claim that the property of being red possesses itself. Indeed, I claim that if the property of being red did not possess itself, then that property could not be truly predicated of anything at all. In other words, I claim that if the property of being red did not possess itself, then the world would be a world utterly devoid of all red entities.

To see this point clearly, let us engage in a thought experiment. Let us imagine that God has reached the point in the creation of the world at which he is about to create the first red entity. He has already created the whole of space-time, and he has populated it with a variety of non-red entities, but he has yet to create anything that is red. For the sake of convenience, let us refer to this soon-to-be-red entity as x. To make x red, he

must first create the property of being red (or turn his attention to it, if we assume that this property exists eternally or even necessarily), and then connect this property to x in a specific sort of way. Perhaps he does this by placing this property into space-time. Indeed, perhaps he does it by placing that property within x itself. Or perhaps he keeps that property back up in heaven and connects it to x via some sort of relation, such as instantiation. The details of this connection do not matter for the moment. Nor does it matter whether this property is assumed to be a universal or a particular.

At this point, let us imagine that God has actually created the property of being red, or that he has turned his attention to it. Let us imagine that God has connected that property to x in the appropriate sort of way. And finally, let us imagine that the property of being red does not possess itself. Then it is difficult to see how anything at all could be red. Why is this? *First of all*, if the property of being red does not possess itself, it is difficult to see how this property itself could be red. Certainly one might suggest that this property is red in virtue of its possessing some property other than itself. But unless this suggestion is to lead straightforwardly to the third-man regress, I claim that this second property must not only be an additional property of being red, but also one that possesses itself, even given the assumption that this second property of being red is a part of the first one. *Second*, if the property of being red is not red, then it is difficult to see how x could be red. After all, if the property of being red is not red, then it is difficult to see how even God could take this non-red entity and connect it to a second non-red entity in such a way that, by doing so, he thereby succeeds in making the second entity red. For example, if we assume that the property of being red is not red, then even if God somehow manages to bring that property down to Earth, it seems that by doing so, he

only succeeds in adding one more non-red entity to a world already cluttered with them. Moreover, if we assume that God takes the property of being red and places it within x itself, as a part of x, it is still difficult to see how x could be red simply in virtue of having that non-red entity – indeed, any non-red entity – as a part. Indeed, even if we assume that God identifies x with the property of being red, as long as we assume that this property is not red, obviously x will not be red, either. On the other hand, if we assume instead that God does not bring the property of being red down to earth or place that property within x itself, but rather connects x to that property in some other way, it becomes even more difficult to see how x could be red. There just does not seem to be any possible relation that is up to this task. Again, one might claim that x becomes red by bearing the relation of instantiation or exemplification to that property. But it is not entirely clear what these claims mean. It cannot be that these relations somehow conduct redness from the property of being red to x like an electrical line conducting electricity, if for no other reasons that this conduction is not something that we ever seem to perceive. And even if we wanted, we could not claim that x becomes red by imitating the property of being red, given that this property has been assumed not to be red. Indeed, even if we now recant and assume that the property of being red is red, it is still difficult to see how it could make x red, given that this property is now being assumed to be separate from x in such a drastic manner. *Third*, no entity will be red if x is not. This is true by definition, given that x has been assumed to be any arbitrarily chosen entity. Consequently, it follows that if the property of being red does not possess itself, then no entity will be red.

Of course, at this point, even if one grants that some properties possess themselves, one might still object that not all of them do so. But as I will argue in the next chapter, there is actually some historical precedent for the claim that all properties possess themselves; for as I will argue, Plato seems to be committed to the truth of something very much like this claim. Of course, some will be frankly unimpressed by my blatant appeal to authority here. Indeed, some critics of Plato have objected to his theory of forms precisely on the grounds that it licenses what is commonly called the self-predication of the forms. Now I grant that there are a number of putative properties that do not seem to possess themselves. But I am confident that the claim that these putative properties are genuine ones will be undercut by the arguments of this section. For example, it certainly sounds strange to claim that the property of being a property that does not possess itself possesses itself. But if the property of being a property that does not possess itself existed, it would be a particularizing property. Yet, as I will explain below, there are no such properties as them.

At the same time, however, I admit that it is an implication of my account – indeed, one of its most central and important implications – that something can be a property only if it is capable of possessing (and indeed does possess) itself. Now I am well aware that this claim will strike many as being very bizarre. But I claim that once we have discarded the implausible doctrine that all predicates correspond to genuine properties, and once the remaining properties have been brought down to earth from Plato's heaven and made spatial, the claim that all properties possess themselves can be seen to be very plausible from an empirical point of view. Indeed, I think that it is phenomenologically obvious that all properties possess themselves. For example, I have

already argued that the redness of the red, rubber ball is red. But I also think it is phenomenologically obvious that the shape of that ball is of that shape, that the size of that ball is of that size, that the texture of that ball has that texture, and so forth. It is something that we can quite literally perceive. Certainly one might object once again that I am making a category mistake here. But if (for example) the shape of the red, rubber ball does not possess itself, we are left with some very implausible alternatives. For it seems very strange to say that the shape of the ball possesses a shape other than itself, especially if this implies that the shape it possesses is qualitatively different than the shape of the ball (i.e., if the shape of the shape of the ball itself is square). And it sounds even stranger to claim that the shape of the ball possesses no shape whatsoever. If one does not think that this sounds strange, presumably one is still operating under the assumption that all properties are non-spatial. But the shape of the ball is a spatial entity, and presumably every spatial entity has some shape or other. Finally, one cannot attempt to evade these alternatives by claiming that there really is no such thing as the shape of the ball in the first place. For if the ball has a shape, then there is such a thing as the shape of that ball.

At this point, I should say something brief about so-called higher-order properties in relation to my account. On the one hand, according to my account, any property will possess at least one property, as we have seen. But, on the other hand, according to my account, no property will possess any property that exists somehow at a different order than itself; for as we have seen, according to my account, given any property, that property possesses one and only one property, namely, itself. Thus, according to my

account, while all properties possess properties, none possess genuinely higher-order ones.

The fifth objection is this. There are such things as negative properties, such as the property of not being red. But if there are such things as negative properties, then my account is false. Thus, that account is false. Now the argument is obviously valid. But it is unsound. In fact, I think both of its premises are false. On the one hand, the second premise is false, since it is not at all clear why my account precludes my ability to consistently claim that some entities have negative properties as parts of their natures. And it is not at all clear why my account precludes the possibility of my consistently claiming that some negative properties possess themselves (e.g., the property of not being red is not red). On the other hand, the first premise is false, since there are no such things as negative properties. In his *A Theory of Universals*, David Armstrong offers the following argument against the existence of negative properties:

> [T]he admission of negative properties leads to a conclusion, noted by McTaggart (1921, § 62), that every particular must have exactly the same number of properties. For each particular, and for each positive property, the particular either has that property, or else lacks it and so has the corresponding negative property. We may therefore set up a one-one correlation between the class of properties possessed by any one particular and the class of properties possessed by any other particular. This result pleased McTaggart, but should appall any Empiricist. If we restrict properties to positive properties, then it becomes a matter to be decided a posteriori, if at all, whether two particulars have or have not the same number of properties.[36]

To be sure, as Armstrong recognizes, this argument depends upon the assumption that, given any particular and any property, either that particular possesses that property or else it does not do so. But even the claim that we can know a priori with respect to entities in

[36] See his (1978b, p. 24).

the same ontological category that they have exactly the same number of properties seems implausible. So I conclude that there are no such things as negative properties.

The sixth objection is this. There are such things as disjunctive properties, such as the property of being red or not red. But if there are such things as negative properties, then my account is false. Thus, that account is false. Now the argument is obviously valid. But it is unsound. In fact, I think both of its premises are false. On the one hand, the second premise is false, since it is not at all clear why my account precludes my ability to consistently claim that some entities have disjunctive properties as parts of their natures. And it is not at all clear why my account precludes the possibility of my consistently claiming that some disjunctive properties possess themselves (e.g., the property being red or not red is either red or not red). On the other hand, the first premise is false, since there are no such things as disjunctive properties. In his *A Theory of Universals*, David Armstrong offers the following argument against the existence of disjunctive properties:

> [I]f a is P, then an indefinite number of distinct predicate of the form 'P v –' will apply to a, where another property-predicate is substituted for the blank. Hence we can know a priori that the particular, a, will have an indefinite number of disjunctive properties: at least as many as there are properties. But any a priori proof that an object has certain properties should be taken as an argument for saying that it has not got those properties. For what, and how many, properties a thing has is not to be determined a priori.[37]

Now, on the one hand, I reject the claim that if we can know a priori that an entity possesses a property, then we ought to conclude that this entity actually does not possess it. Indeed, it seems especially implausible to think that there are no cases in which we can know a priori that entity x has property F has part of its nature, given that we already know that x also has G and H as parts of its nature. For example, it seems that we can

[37] See his (1978b, p. 20).

know a priori that something is an isosceles triangle if we already know that it is a closed, three-sided plane figure, two sides of which are equal in length. But, on the other hand, it really does seem implausible to think that if we know that entity x possesses at least one property, then on that basis we can know a priori that x possesses an indefinite or infinite number of properties. So I conclude that there are no such things as disjunctive properties.

If there are no such things as disjunctive or negative properties, this seems to suggest (even if it does not, strictly speaking, entail) that there are no such things as conjunctive properties. However, as we will see below, I do avail myself of properties that are complex in a non-conjunctive manner. Perhaps not surprisingly, I construct them mereologically. According to my view, for a property to be complex is for it to have other properties as proper parts. Of course, some have objected that there are no such things as complex properties, conjunctive or not. But as far as I am able to determine, the strongest argument against the claim that there are complex properties is the one put forward by Grossmann.[38] According to him, the major impetus for the claim that there are complex properties is the claim that every meaningful predicate corresponds to its own genuine property. Now, on the one hand, of course, I agree with Grossmann's rejection of the latter claim. But, on the other hand, I insist that even if we reject the latter claim, we can still accept the former one. Indeed, we can reject the latter claim, accept the former one and yet maintain a relatively austere conception of which properties there are.

The seventh objection is as follows. There are such things as particularizing properties, such as the property of being a human being. (Sometimes these are also

[38] See his (1983).

referred to as substantial or sortal properties.) But if there are such things as particularizing properties, then my account is false. Thus, that account is false. Now the argument is obviously valid. But it is unsound, since both of its premises are false. First of all, I do not think that it is implausible to claim that the natures of some entities have particularizing properties as parts, perhaps even as non-proper parts. To be sure, this strategy would presumably require all particularizing properties to be identified as particulars (i.e., tropes). Otherwise, there could not be two distinct human beings, for example. But, nevertheless, if the strategy could be made to work, it would imply that the second premise of the argument above is false. In any case, it is also important to note that the first premise of the argument is also false. In other words, there are no such things as particularizing properties in the first place. In his *A Theory of Universals*, David Armstrong writes:

> [T]here is an argument from simplicity. Suppose that a particular has all the properties which are required for something to be gold or an electron. Will it not be gold or be an electron? Why postulate some further universal which it must exemplify in order to be gold or an electron? It is true that there may be in addition nomic connections between these properties which bind the properties up into a unity… But given such a unified bunch of properties (itself a property according to the doctrine of conjunctive universals put forward in ch. 15), what need of a further unifying universal? It may be conceded that actually to say of something that it has all the properties of gold is normally to hint that the thing is not, or may not be gold. But there seems to be no reason to take this usage to be a significant pointer to the ontology of the situation.[39]

Now, on the one hand, since I have already indicated that there are no such things as conjunctive properties, some alternative view on what it is for a property to be complex will be required. But, on the other hand, since Armstrong's argument still goes through even given this alternative view, I conclude that there are no such things as particularizing properties.

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[39] See his (1978b, p. 62).

At this point, by way of conclusion, I turn to the issue of essential properties.[40] I have two points to make in connection with this issue. The first is that my account of property possession is perfectly compatible with the claim that at least some of the properties that can be truly predicated of what are sometimes called ordinary material objects are in some sense essential to those objects. For example, my account is compatible with the claim that the property of being negatively charged is in some sense essential to the electron of which it is predicated. At the same time, however, some care must be taken to parse this claim in relation to my account. According to my account, since that electron is not identical to that property, then since for that reason that electron will not bear the relation of property possession to that property, trivially it will not possess it essentially. But, on the other hand, that property may still be essential to that electron in the sense that, necessarily, if that electron exists, then that property will be a part of the nature to which that electron bears the relation of property possession. I will return to discuss this issue in greater detail in chapter four.

The second point is that my account of property possession actually entails that some entities possess certain properties essentially. In particular, it entails that some properties possess themselves essentially. Consider the property of being red, for example. I have already argued that this property possesses itself. If it possesses itself, then it is what I call an instance of redness. Now let us imagine that it comes to posses the property of being blue (or some other color). Then it will no longer be an instance of redness. It will be an instance of some other color. Thus, the property of being red is an

[40] There is a rather large literature on the topic of essential properties that I do not comment on here. Certainly one might fault me for not commenting upon it. But I feel my sins here, if they are sins, are venial and not moral ones, given that since the points I have to make in connection with essential properties are relatively novel, even idiosyncratic ones, that literature is simply not relevant for my purposes, and so need not be commented upon.

essential property of the property of being red. Do all properties possess themselves essentially on my account? According to my account, if there are such things as simple properties (i.e., properties without proper parts), then all such properties possess themselves essentially. According to my account, if the principle of mereological extensionalism is true, then all complex properties (i.e., properties with proper parts) also possess themselves essentially. But according to my account, if the principle of mereological extensionalism is false, then it may be possible for some complex properties to have some proper parts other than the ones they actually have. That is to say, if that principle is false, then as properties go from simple to complex, the chance for accidents increases.

CHAPTER 2 AGAINST INTERNALISM AND EXTERNALISM

Introduction. In this chapter, I argue against Externalism and Internalism about property possession. Against the latter, I argue that it is false, since it fails to provide a necessarily true sufficient condition for property possession.[41] Against the former, I examine Armstrong's argument that it is false, since it fails to provide a necessarily true necessary condition for property possession. I show that while this argument refutes some versions of Externalism, it does not refute them all. So I offer an alternative argument against Externalism in general. According to this argument, Externalism is false, since whereas it implies that no entity ever possesses any property essentially, that claim is false. To refute Externalism and Internalism is to refute the overwhelming majority of competitors to my account of property possession as identity.

Prior to arguing against Externalism and Internalism, we must first complete the definitions of those two views. To do that, we must first specify the conditions under which y is external to x (according to the former view) and the conditions under which y is internal to x (according to the latter one). And to do that, we must first recall some of the remarks made about mereology in the previous chapter.

Recall that mereology is formulated by taking the reflexive and symmetrical but non-transitive relation of overlap as a primitive, and by defining other mereological relations on the basis of it. One such relation is parthood: x is a part of y just in case y overlaps everything that y overlaps. Unlike overlap, the relation of parthood is reflexive and transitive but non-symmetrical. If x is a part of y, then either x is what is called a proper part of y, or else x is what is called a non-proper part of y. On the one hand, x is a

[41] Recall that if Internalism fails to provide a necessarily true sufficient condition, then it is not necessarily the case that if a property is internal to an entity (in a manner to be specified below), then that entity possesses that property as one of its own.

proper part of y just in case x is a part of y but y is not a part of y. Unlike overlap and parthood, the relation of proper parthood is transitive but anti-reflexive and anti-symmetrical. On the other hand, x is a non-proper part of y just in case x is a part of y and y is a part of x. Unlike overlap, parthood and proper parthood, the relation of non-proper parthood is transitive, reflexive and symmetrical. Finally, x and y do not overlap each other just in case they are disjoint.

We are now in a position to complete the definitions of Externalism and Internalism. On the one hand, Externalism is the view that for x to possess a property is for x to bear a certain relation (to be specified relative to the instance of Externalism under consideration) to a certain entity y (also to be specified in such a manner) that is external to x in the sense that y is *not a part* of x. On the other hand, Internalism is the view that for x to possess a property is for x to bear a certain relation (to be specified relative to the instance of Internalism under consideration) to a certain entity y (also to be specified in such a manner) that is internal to x in the sense that y is a *proper part* of x.

There are two points concerning the logic of these definitions that should be noted prior to proceeding. The *first* is that, as they are defined, Externalism and Internalism are mutually exclusive of each other. That is to say, as they are defined, no account of property possession can be a version of them both. After all, just as it follows that y is external to (i.e., not a part of) x only if y is not internal to (i.e., not a proper part of) x, it also follows that y is internal to (i.e., a proper part of) x only if y is not external to (i.e., a non-part of) x. As we will see below, the fact that Externalism and Internalism are mutually exclusive of each other has an important ramification for certain hybrid views on property possession, which attempt to give both an Externalist and an Internalist

analysis of property possession for one and the same class of entities. For as we will see, since Externalism and Internalism are mutually exclusive of each other, such hybrid views actually turn out to be incoherent.

The *second* is that, as they are defined, Externalism and Internalism are not exhaustive. That is to say, as they are defined, it is not the case that, given any account of property possession, that account is a version of either the one view or the other. After all, my account is one that is not. For according to my account, if x possesses y as a property, then just as y will fail to be external to (i.e., a non-part of) x, y will also fail to be internal to (i.e., a proper part of) x. Instead, according to my account, if x possesses y as a property, then y will be a non-proper part of x. It will be the non-proper part of x to which x is numerically identical.

Against Internalism. In this section, I argue that Internalism is false, since it fails to provide a necessarily true sufficient condition for property possession. I begin with the mereological view of L.A. Paul.

Against Paul's view. L.A. Paul offers an explicitly mereological view on property possession. As she puts it, her view amounts to "subsuming the bundle theory under the aegis of mereology" (2002, p. 579). According to Paul, for an object to possess a property is for that property to be a proper part of that object. So, for example, according to her, for a red, rubber ball to possess the property of being red is for that property to be a proper part of that ball. I take it as obvious that this view counts as a version of Internalism, given the definition of that view provided above.

Since Paul's view is couched exclusively in terms of mereology, a minimum of exposition of that view is required, given that we have already discussed mereology in some detail. Still, there are two points of clarification regarding her view that should be noted prior to proceeding. The first is that even though I will focus on her view only insofar as it pertains to the possession of spatial properties by spatial objects, presumably her view could be extended to cover other cases. For example, if it is possible for non-spatial objects to have non-spatial properties as proper parts, her view can account for the possession of non-spatial properties by non-spatial objects. Furthermore, if it is possible for spatial objects to have non-spatial properties as proper parts, then her view can account for the possession of non-spatial properties by spatial objects. And if it is possible for non-spatial objects to have spatial properties as proper parts, then her view can account for the possession of spatial properties by non-spatial objects. Certainly one might claim that the possibility of non-spatial objects possessing spatial properties is not really a live option. But if this claim is true, I cannot see why a similar claim should not be made about the possibility of spatial objects possessing non-spatial properties, which some have thought is a live option. Both claims seem to me to be indicative of a category mistake, even assuming that there are such things as non-spatial entities.

The second is that even though Paul is committed to the claim that for an object to possess a property is for that property to be a proper part of that object, she is not committed to the claim that if x is a proper part of y, then y automatically possesses x as a property. Paul distinguishes between those proper parts of an object that are properties, and those proper parts of an object that are other objects. She refers to the former as logical proper parts and to the latter as non-logical ones. (For example, according to her,

whereas the property of being a chair is a logical proper part of the chair, one of the chair's legs is a non-logical proper part of it.) Given this distinction, she rejects the claim that if x is a non-logical proper part of y, then y possesses x as a property. Instead, she accepts the claim that x is a property that y possesses just in case x is a logical proper part of y.

Despite these qualifications, it should be easy enough to see that Paul's view is false, since it fails to provide a necessarily true sufficient condition for property possession. That is to say, her view is false, since it is not necessarily true that if a property is a proper part of an object, then that object automatically possesses that property as one of its own. To see this point clearly, let us consider the case of the universe as a whole. I assume that since the universe contains some protons, the property of being positively charged is a proper part of the universe. (This assumption is secured by the fact that this property is spatially overlapped by the universe as a whole, but not conversely. Certainly this is an assumption that Paul will grant, given that she will grant that the universe overlaps all of the spatial locations that the property overlaps.) And I assume that since the universe also contains some electrons, the property of being negatively charged is a proper part of the universe. (This assumption is secured by the fact that this property is spatially overlapped by the universe as a whole, but not conversely.) Now if the properties of being positively and negatively charged are proper parts of the universe as a whole, then according to Paul's view, the universe should possess both of those properties. But those properties are contraries of each other in the sense that no one entity can possess them both simultaneously. Thus, Paul's account is

false, since it fails to provide a necessarily true sufficient condition for property possession.[42]

Of course, at this point one might object that the universe can be both positively and negatively charged at the same time, since the properties of being positively and negatively charged are not contraries of each other. But this objection is implausible. On the one hand, I grant that those properties are not contradictories of each other in the sense that, given any entity, we can truly predicate either the one or the other but not both of those properties of that entity. But, on the other hand, I insist that those properties are contraries in the sense that, given any entity, if we can truly predicate one of those properties of that entity, then we cannot truly predicate the other property of it. To be sure, one might think that the case of the polarized oxygen molecule counts as a counter-example to this last claim. But this case actually does not constitute such a counter-example, since such molecules are neutrally charged. And since the properties of being positively, negatively and neutrally charged are contradictories of each other in the sense that, given any entity, we can truly predicate one and only of property of that entity at any one time, it actually follows that the properties of being positively and negatively charged are contraries of each other in the sense specified above.

On the other hand, one might also object that the universe can be both positively and negatively charged at the same time, not because the properties of being positively and negatively charged fail to be contraries of each other, but rather in the sense that the universe's being positively and negatively charged just amounts to the fact that whereas certain sub-regions within the universe (e.g., regions where protons are located) are

[42] Indeed, it fails to provide an actually true sufficient condition for property possession. The reason for my presentation is for the sake of symmetry with my critique of Externalism below.

positively charged, other sub-regions (e.g., regions where electrons are located) are negatively charged. But this objection is also implausible, since to claim that the universe is positively charged (or negatively charged) is not to make a claim about various sub-regions of the universe. Rather, it is to make a claim about the universe as a whole. To be sure, to claim that the universe is positively charged (or negatively charged) is not to claim that it is positively (or negatively) charged *all over*. Rather, it is to claim that the *total charge* of the universe is positive (or negative). But since the properties of being positively and negatively charged are contraries of each other in the sense specified above, the total charge of the universe can no more be both positive and negative than the red, rubber ball can be blue.

Finally, one might even object that my argument fails because the universe is not the kind of thing that is capable of possessing properties in the first place. I have three replies to make to this objection. The first is that the universe clearly does possess properties. For example, it seems to have a mass, even if 1) there are an infinite number of massive objects in the universe, and 2) the universe's mass is simply a function of the collective masses of the objects that it contains. The universe also seems to have a volume, even if 1) there are an infinite number of discrete voluminous regions within the universe, and 2) the universe's volume is simply a function of the collective volume of these regions. Second, since the properties of being positively, negatively and neutrally charged are contradictories of each other in the sense that, given any entity, one and only one of these properties can be truly predicated of that entity, and since the universe is an entity (i.e., it exists), this entails that the universe has some charge or other. And the third is that even if I simply grant the universe does not have a charge, there are all sorts of

other examples I can use to show that Paul's version of Internalism fails to provide a necessarily true sufficient condition for property possession. That is to say, given virtually any entity, there are a vast number of properties that are proper parts of that entity that it nevertheless fails to possess.[43]

It is important to note that the case of the universe actually suggests two entire classes of counter-examples to Paul's view on property possession. The first is based on the assumption that if x is a logical proper part of y and y is a logical proper part of z, then x is a logical proper part of z. (This presupposition seems justified by the fact that the mereological relation of proper parthood is transitive.) For the purpose of the argument, I will assume that I have as a logical proper part the property of being human. And I will assume that the property of being human has as a logical proper part the property of being identical to the property of being human.[44] Now if the property of being identical to the property of being human is a logical proper part of the property of being human, and if the property of being human is a logical proper part of me, then according to the assumption made above, the property of being identical to the property of being human is a logical proper part of me. And if that property is a logical proper part of me, then according to Paul's view, I will possess this property as one of my own. But not only is this particular result implausible, given that I do not seem to posses the property of being identical to the property of being human; since this argument can be

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[43] Obviously this is true by my own lights. But it is important to note that it is also true by Paul's own. After all, she will concede that there are a vast number of properties that are proper parts of an entity that we can nevertheless not truly predicate of that entity. And she also seems to accept the principle that a property can be truly predicated of an entity just in case that entity possesses that property.

[44] I am well aware of the fact that whereas this property is a relational one, I argued that there are no such properties as them in chapter one. I chose this example only for the sake of illustration. There are many other examples that one might choose instead of this one

generalized to a large number of cases other than this one, these cases constitute an entire class of counter-examples to Paul's view.

The second class of counter-examples is based on the assumption that if x is a logical proper part of y and y is a non-logical proper part of z, then x is a logical proper part of z. (This presupposition, though perhaps seeming more controversial than the previous one, is also justified by the fact that the mereological relation of proper parthood is transitive.) For the sake of the argument, I will assume that the property of being a liver is a logical proper part of my liver. And I will assume that my liver is a non-logical proper part of me. Now if the property of being a liver is a logical proper part of my liver, and if my liver is a non-logical proper part of me, then according to the assumption made above, the property of being a liver will be a logical proper part of me. And if this property is a logical proper part of me, then according to Paul's view, I will possess that property as one of my own. But not only does this particular result seem implausible, given that I do not seem to possess the property of being a liver. Since this argument can be generalized to a large number of cases other than this one, these cases constitute a second class of counter-examples to Paul's view.

In the following sections, I will explain how these same arguments can be used to refute others versions of Internalism. And in section 2.4, I will explain how they can be used to refute Internalism in general. Of course, in the meantime, one might object that even if Paul's view fails to provide a true sufficient condition for property possession, it nevertheless succeeds in providing a true necessary condition for it. That is to say, even if one grants that it is not the case that a property is a proper part of an entity only if that entity possesses that property, one might still object that if an entity possesses a property,

then that property will be a proper part of that entity. Now this objection may seem plausible at first. But as I will argue in chapter three, an entity possesses a property just in case that property and that entity are identical to each other. And from this it follows that if an entity possesses a property, then that property is not a proper part of that entity, but rather a non-proper one.

Against Denkel's view. In his *Object and Property*, Arda Denkel writes: "For an object to have a property is for that object to bear it throughout (part of) its extension, where that property permeates with other properties (of the object) which extend across the same spatial position" (1996, p. 37). At least insofar as the case of spatial objects and spatial properties is concerned, this seems to suggest that for such an object to possess such a property is for the spatial location of the latter to be overlapped by the spatial location of the former. Indeed, Denkel himself seems to confirm as much later on, when he writes:

> My view is that to inhere in a substance is to be the element of a compresence of qualitative properties. In the *Categories*, Aristotle takes the object itself (the primary substance) as that to which the attributes belong. Accordingly, a property inheres in an object simply in the sense of 'being present in' that object (1996, p. 41).

Thus, according to his view, for a spatial object to possess a spatial property is for that property to be a proper part of that object. Hence his view on property possession is an instance of Internalism, at least insofar as that view pertains to the possession of spatial properties by spatial objects. For the sake of brevity, from now on I will simply say that according to Denkel, for an entity to possess a property is for that property to be present in that entity.

There are two points of clarification regarding Denkel's view on property possession that should be noted at this time. These points correspond to the ones I made above Paul's view above. The first is that even though I will focus on his view only insofar as it pertains to the possession of spatial properties by spatial objects, the view may be able to be extended to account for other cases. For example, if it is possible for non-spatial objects to have non-spatial properties present in them in a non-spatial manner, then his view can account for the possession of non-spatial properties by non-spatial objects. If it is possible for spatial objects to have non-spatial properties present in them in a non-spatial manner, then his view can account for the possession of non-spatial properties by spatial objects. And if it is possible for non-spatial objects to have spatial properties present in them in a non-spatial manner, then Denkel's view can account for the possession of spatial properties by non-spatial objects. Indeed, Denkel himself seems to regard his view as being capable of being extended in these ways. For he claims that while all properties are extended, not all of them are extended in a spatial manner.[45]

The second point is that while Denkel is committed to the claim that for a spatial object to possess a spatial property is for that property to be present in that object, he is not committed to the claim that if y is present in x, then x automatically possesses y as a property. Denkel draws a distinction between the things present in an entity that are properties and the things present in that entity that are objects. Given this distinction, he will obviously deny that if y is an object that is present in y, then y possesses x as a property. Instead, he will claim that x possesses y as a property just in case 1) y is present in x, and 2) y is a property.

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[45] See his (1996).

Despite these qualifications, Denkel's view is also false, since it fails to provide a necessarily true sufficient condition for property possession. That is to say, his view is false, since it is not necessarily the case that if a property is merely present in an entity, then that entity will possess that property as one of its own. As before, to see this point clearly, let us consider the case of the physical universe as a whole. I will assume that since the universe contains some protons, the property of being positively charged is present in the universe. (This assumption seems justified by the fact that the property of being negatively charged is spatially overlapped by the universe as a whole.) And I assume that since the universe also contains some electrons, the property of being negatively charged is also present in the universe. (This assumption seems justified by the fact that the property of being negatively charged is spatially overlapped by the universe as a whole.) Now if the properties of being positively and negatively charged are present in the universe, then according to Denkel's view on property possession, the universe should possess both of those properties. But those properties are contraries of each other in the sense that no one entity can possess them both simultaneously. Thus, Denkel's view is false, since it fails to provide a necessarily true sufficient condition for property possession. Indeed, at this point, it really should be clear that that claim that for an entity to possess a property is merely for that property to be present in that entity is not at all a live option.

As before, the case of the universe as a whole actually suggests two entire classes of counter-examples to Denkel's view. The first is based on the assumption that if x is a property that is present in y and y is a property that is present on z, then x will be a property that is present in z. (This assumption seems secured by the fact that the relation

that x bears to y just in case x is present in y seems to be a transitive one.) For the sake of the argument, I will assume that the property of being human is present in me. And I will assume that the property of being identical to the property of being human is present in the property of being human. Now if the property of being identical to the property of being human is present in the property of being human and if the property of being human is present in me, then according to the assumption made above, the property of being identical to the property of being human is present in me. And if the property of being identical to the property of being human is present in me, then according to Denkel's view on property possession, I will possess this property. But not only does this particular result seem implausible, given that I do not seem to be identical to this property. Since this argument can be generalized to a large number of cases other than this one, these cases constitute an entire class of counter-examples to Denkel's view on property possession.

The second class is based on the assumption that if x is a property that is present in y and y is an object that is present in z, then x is a property that is present in z. (This assumption also seems secured by the fact that the relation that x bears to y just in case x is present in y seems transitive.) For the sake of the argument, I will assume that my liver is an object that is present in me. And I will assume that the property of being a liver is a property that is present in my liver. Now if the property of being a liver is a property that is present in my liver, and if my liver is an object that is present in me, then according to the assumption made above, the property of being a liver will be a property that is present in me. And if the property of being a liver is a property that is present in me, then according to Denkel's view on property possession, I will possess that property. But not

only does this particular result seem implausible, given that I do not seem to possess this property. Since this argument can be generalized to a large number of cases other than this one, these cases constitute a second class of counter-examples to Denkel's view.

The view of Aristotle. While it is widely agreed that Aristotle criticized Plato for separating the forms from sensible things, there is widespread disagreement over exactly how Aristotle understands the notion of separation. Consequently, there are two reasons why it is important to become clear on this point. The first is that by doing so, we will come to have a better understanding of Aristotle's critique of Plato's doctrine, and whether that critique is successful. And the second is that by doing so, we will come to have a better understanding of Aristotle's positive view on the matter

As I said above, while there is widespread agreement that Aristotle criticized Plato for separating the forms from sensible things, there is widespread disagreement over exactly how Aristotle understood the notion of separation. On what I take to be the orthodox interpretation, according to Aristotle, for the forms to be separate from sensible things is for the forms to be capable of existing independently of those things. So, for example, on this interpretation, according to Aristotle, for the form of Beauty to be separate from sensible things is for that form to be capable of existing even if all of those things do not. While this interpretation has been adopted by a number of commentators at various times, it is currently most closely associated with Gail Fine.[46]

It is important to note that Fine's interpretation is to be distinguished from the one on which according to Aristotle, for a form to be separate from sensible things is for that form to be capable of existing independently of all of those sensible things that

[46] See her (2003).

participate in it. For example, on this latter interpretation, according to Aristotle, for the form of Beauty to be separate from sensible things is for that form to be capable of existing even if all beautiful sensible things do not. According to this interpretation, the claim that the form of Beauty is separate from sensible things is perfectly compatible with the claim that the form of Beauty is nevertheless dependent for its existence upon sensible things that are not beautiful, whereas according to Fine's interpretation, these two claims are not compatible with each other. Since it seems implausible to regard Plato as holding that the form of Beauty is dependent for its existence upon ugly sensible things, I take this as a sufficient reason to reject this latest interpretation out of hand.

What is to be made of Fine's interpretation? On the one hand, I grant that it captures a claim that Aristotle makes at various points in the *Categories* and elsewhere, which is that absolutely nothing would exist were it not for the existence of primary substance. After all, it follows that if the forms are not separate from sensible substances on Fine's interpretation, then those forms will be dependent for their existence upon those substances. But, on the other hand, Fine's interpretation fails to capture the relation that Aristotle believes obtains between the notions of separation and sensation. As I will argue below, according to Aristotle, it follows that if the forms are not separate from sensible things, then the forms themselves are sensible. But it does not follow that if the forms are not separate from sensible things on Fine's interpretation, then the forms are sensible. For it does not follow that the forms are sensible, provided merely that the forms are incapable of existing independently of sensible things. After all, it might just be that the forms are non-sensible things that are nevertheless dependent for their existence upon sensible ones.

In her recent *Substance and Separation in Aristotle*, Lynne Spellman offers an interesting and, as far as I am able to determine, novel interpretation of Aristotle's understanding of the notion of separation. On Spellman's interpretation, according to Aristotle, for the forms to be separate from sensible things is for the forms to be numerically distinct from those things. On her interpretation, according to Aristotle, while accidental forms are separates from sensible substances, substantial forms are not. It is important to note how Spellman's interpretation differs from Fine's. On the one hand, if follows that if the forms are separate from sensible things on Fine's interpretation, then the forms are separate from separate from those things on Spellman's. For it follows that if the forms are capable of existing independently of sensible things, then those forms will be numerically distinct from those things. But, on the other hand, it does not follow that if the forms are separate from sensible things on Spellman's interpretation, then the forms are separate from those things on Fine's. For it does not follow that if the forms are numerically distinct from sensible things, then those forms are capable of existing independently of those things. After all, it might just be that the forms are numerically distinct from but nevertheless dependent for their existence upon sensible things.

What is to be made of Spellman's interpretation? On the one hand, I grant that it captures the relation Aristotle believes obtains between the notions of separation and sensation. For it follows that if the forms are not separate from sensible things on Spellman's interpretation, then the forms themselves are sensible. After all, it follows that if the forms are not numerically distinct from sensible things, then those forms themselves are sensible. But, on the other hand, it seems implausible to say that

According to Aristotle, substantial forms are not numerically distinct from the sensible substances that possess them, not to mention accidental forms. At least in the *Metaphysics*, Aristotle seems to regard sensible substances as composites of form and matter. But if a substance is a composite of form and matter, then there is more to that substance than that form. And if there is more to a substance than its form, then that substance and that form will be numerically distinct from each other.

It should be noted that if Spellman's interpretation had been correct, Aristotle's view would have constituted something of an historical precedent for my account of property possession as identity. To be sure, it is not the case that on her interpretation of that view, according to him, all forms are not numerically distinct from the substances that possess them; for on that interpretation, according to him, only substantial forms are not numerically distinct from the substances that posses them. On that interpretation, according to him, accidental forms are numerically distinct from the substances that possess them. Since I claim that any property is numerically identical to the entity that possesses it, I must either tell some story about how to draw the distinction between substantial and accidental properties on my account, or else I must tell some story about why that distinction is not to be drawn. I will return to this issue in chapter four.

Returning to the issue of separation, on my interpretation, according to Aristotle, for the forms to be separate from sensible things is for the forms themselves not to be sensible. Of course, at this point one might object that whereas my interpretation implies that Aristotle regards all forms are being sensible, he evidently does not. Now, on the one hand, I grant that Aristotle does indeed regard some forms as being non-sensible. But, on the other hand, I deny that my interpretation implies that he holds that all forms

are sensible. When Aristotle criticizes Plato for separating the forms from sensible things, I take him to be criticizing Plato for claiming that all forms are non-sensible. By rejecting this claim, Aristotle leaves open the possibility that while some forms are sensible, others are not. This is the intermediate position I take him to occupy.

Even so, to claim that according to Aristotle, for the forms not to be separate from sensible things is for the forms to be sensible is not to make a very informative claim about the exact relation that he thinks obtains between forms and the substances that possess them. Unfortunately, the issue what exactly is the relation that Aristotle believes obtains between forms and the sensible thing that possess them cannot be discussed here, as that issue would require an essay unto its own. Suffice it to say that since Aristotle's view on this issue seems to be a version of Internalism, it fails for the reasons the other versions of that view failed above.

Against Internalism in general. In the preceding sections, I have argued against a variety of different versions of Internalism. At this point, it should be clear that Internalism in general is false, since it fails to provide a necessarily true sufficient condition for property possession. After all, it is not necessarily the case that if a property is a proper part of an entity, then that entity automatically possesses that property as one of its own. Of course, as we have seen, one might object that even if Internalism in general fails to provide a true sufficient condition for property possession, it nevertheless succeeds in providing a true necessary condition for it. That it so say, even if one grants that even if it is not the case that a property is a proper part of an entity only if that entity possesses that property, one might still object that an entity possesses a

property only if that property is a proper part of that entity. But, as I said above, in chapter three, I will argue that property possession and identity are one and the same relation. If property possession and identity are one and the same relation, it follows that Internalism does not provide a true necessary condition for property possession, either. For if property possession and identity are one and the same relation, it follows that for an entity to possess a property is for that property to be a non-proper part of that entity, as opposed to a proper one. Indeed, if property possession and identity are one and the same relation, this by itself suffices to show that Internalism fails to provide a necessarily true sufficient condition for property possession. So even if one rejects the arguments against Internalism of this section, there is still an argument against that view yet to come.

Against Externalism. In the previous section, I argued that Internalism is false, since it fails to provide a necessarily true sufficient condition for property possession. In this section, I examine Armstrong's argument that Externalism is false, since it fails to provide a necessarily true necessary condition for property possession. I show that while this argument refutes some versions of Externalism, it does not refute them all. So I provide an alternative argument against Externalism in general. According to it, Externalism is false, since whereas it implies that no entity ever possesses any property essentially, that claim is false. I begin with Predicate Nominalism.

Against Predicate Nominalism. Predicate Nominalism is the view that for an entity to possess a property is for that entity to satisfy a predicate, e.g., the predicate 'is red.' Now, on the one hand, there seems to be some consensus amongst Predicate Nominalists

that the relation that x bears to a predicate just in case x satisfies that predicate – a relation that we can refer to as predicate satisfaction – is a *sui generis* and primitive one. Also, there seems to be some consensus amongst them that if x satisfies a predicate, then there is nothing more fundamental in virtue of which it does so. (Certainly it does not do so in virtue of its possessing some property that is in some sense prior to the satisfaction of that predicate.) But, on the other hand, there seems to be some disagreement amongst them over the issue of the ontological status of predicates themselves; for whereas some Predicate Nominalists seem to identify predicates with various spatial entities (e.g., the etchings we etch, the utterances we utter, etc.), others seem to identify them instead with various non-spatial entities (e.g., parts of propositions). As has been noted, since at least some of these non-spatial entities are to be regarded as types, there is a case to be made that at least some versions of the view do not count as genuine versions of Nominalism about universals.[47] Nevertheless, since my primary concern in this essay is not with the problem of universals, but with the problem of property possession, for the sake of convenience I will continue to refer to all versions of the view as versions of Predicate Nominalism. Finally, it should be clear that all versions of the view count as genuine versions of Externalism. After all, no Predicate Nominalist of whom I am aware seems to regard the predicates that an entity satisfies as being parts of that entity.

In his *Nominalism and Realism*, Armstrong offers a variety of arguments against Predicate Nominalism. But in my opinion, the strongest of these is the one according to

[47] See Armstrong (1978a).

which that view is false, since it fails to provide a necessarily true necessary condition for property possession.[48] He writes:

> According to Predicate Nominalism, an object's possession of (say) the property, being white, is completely determined by the fact that the predicate 'white' applies to this object. But now let us make a thought-experiment. Let us imagine that the predicate 'white' does not exist. Is it not obvious that the object might still be white? If so, its whiteness is not constituted by the object's relation to the predicate 'white.' (1978a, p. 17).

As I reconstruct it, Armstrong's argument is as follows. Let us assume that there is at least one x that possesses the property of being white. According to Predicate Nominalism, for x to possess the property of being white is for x to satisfy the predicate 'is white.' Now one can well imagine a situation in which x continues to possess the property of being white even though the predicate 'is white' has ceased to exist for whatever reason. But if one can imagine such a situation, then it is not necessarily the case that if x possesses the property of being white, then x satisfies the predicate 'is white.' Thus, Predicate Nominalism is false, since it fails to provide a necessarily true necessary condition for property possession.

What is to be made of this argument? On the one hand, I grant that it refutes at least some of the versions of Predicate Nominalism that identify predicates with spatial entities (e.g., our etchings and utterances). After all, it seems entirely possible for there to be at least one entity that continues to possess the property of being white even though all of those spatial entities have ceased to exist. But, on the other hand, I deny that the argument refutes all of the versions of Predicate Nominalism that identify predicates with non-spatial entities (e.g., parts of propositions). After all, presumably at least some of the proponents of these versions of the view will regard those non-spatial entities as existing

[48] Many of these argument are designed to show that Predicate Nominalism fails to provide an adequate solution to the problem of universals. But, again, that is not the problem I am concerned with in this essay.

necessarily. And if predicates exist necessarily, then trivially there will be no possible case in which x continues to possess the property of being white even though the predicate 'is white' has ceased to exist. Thus, what is needed is an alternative argument against Predicate Nominalism, one that refutes all versions of that view. In the remainder of the section, I defend the premises of one such argument.

For the purposes of this argument, let us say that x possesses a property extrinsically just in case x's possession of this property amounts to x's bearing a certain relation to something that is not a part of x. Let us say that x possesses a property intrinsically just in case x's possession of this property amounts to x's bearing a certain relation to something that is a part of x. And let us say that x has an intrinsic nature just in case x possesses at least one property intrinsically. Given these terminological points, the first premise of my argument against Predicate Nominalism is as follows:

(P1) If Predicate Nominalism is true, then given any x, x possesses all of its properties extrinsically.

Given the nature of the analysis of property possession provided by Predicate Nominalism, this premise is obviously true. After all, as I said above, no Predicate Nominalist of whom I am aware seems to regard the predicates that an entity satisfies as being proper parts of that entity.[49]

The second premise of the argument is as follows:

(P2) If x possesses all of its properties extrinsically, then it is utterly arbitrary which predicates are the predicates that x satisfies.

[49] Perhaps the universe as a whole constitutes a counter-example here. But if so, we can understand 'x' to range just over the entities contained within the universe.

Why is this premise true? On the one hand, I grant that if x possesses at least one property intrinsically, then it will not be entirely arbitrary which predicates are the ones that x satisfies. For example, if x possesses the property of being red intrinsically, it will not be arbitrary that x satisfies the predicate 'is red.' After all, if x possesses the property of being red intrinsically, then x will satisfy that predicate precisely because x is intrinsically red. But, on the other hand, it seems that if x possesses all of its properties extrinsically, then it will be entirely arbitrary which predicates are the ones that x satisfies. After all, if x possesses all of its properties extrinsically, then not only will x fail to be red intrinsically. If x satisfies the predicate 'is round', it will fail to be round intrinsically; if it satisfies the predicate 'is smooth', it will fail to be smooth intrinsically; and so forth. In general, if x possesses all of its properties extrinsically, then there will be nothing that x is like in and of itself, so to speak. But if there is nothing that x is like in and of itself, then it will be entirely arbitrary which predicates are the ones that x satisfies. Indeed, this much seems suggested by the very statement of Predicate Nominalism. For as we saw, according to that view, if a predicate applies to an entity, then since there is nothing in virtue of which that predicate applies to that entity, there is a sense in which that predicate just happens to apply to that entity. Of course, one might object that there will be causal or historical reasons why x satisfies the predicates it satisfies. But presumably x can be caused by y to satisfy a predicate only if y itself satisfies certain predicates. Yet if (P2) is true, then since it will be entirely arbitrary which predicates are the ones that y satisfies, it will still ultimately be arbitrary that x satisfies the predicates it satisfies, even given the assumption that y causes x to satisfy them.

The third premise of the argument is as follows:

(P3) If it is utterly arbitrary which predicates are the ones that x satisfies, then x does not possess any properties essentially.

Why is this premise true? First of all, if it is arbitrary which predicates are the ones that x satisfies, then there will be no principled reason why one predicate applies to x, as opposed to a second one. Second, if there is no reason why one predicate applies to x, as opposed to a second one, then x could just as well have satisfied the second predicate, and not the first one. But in that case, x would not have satisfied any predicates necessarily. Of course, one might object that x has to satisfy certain predicates, given that it satisfies certain others. For example, one might object that x has to satisfy the predicate 'is human,' given that it satisfies the predicate 'is rational' and 'is an animal.' But since it will be arbitrary that x satisfies the latter predicates, it will still be arbitrary that it satisfies the former one.

At this point, we can conclude the following from (P1), (P2) and (P3):

(P4) If Predicate Nominalism is true, then given any x, x does not possess any properties essentially.

But the next premise is this:

(P5) There is at least one entity that possesses at least one property essentially.

I argued for this premise in the previous chapter.

At this point, we can conclude the following:

(C) Predicate Nominalism is false.

I regard this argument as constituting a successful refutation of all versions of Predicate Nominalism: If that view in general is true, then since no entity will possess any property

intrinsically, there will be nothing that entity is like considered in and of itself, in which case, since it will be entirely arbitrary which predicates are the ones that it satisfies, no entity will possess any property essentially, given the Predicate Nominalist's analysis of property possession. In the following sections, I will show that much the same argument refutes other versions of Externalism.

Against Concept Nominalism. Concept Nominalism is the view that for an entity to possess a property is for that entity to fall under a concept, e.g., the concept of a red entity. Now, on the one hand, there seems to be some consensus amongst Concept Nominalists that the relation that x bears to a concept just in case x falls under that concept – a relation that we can refer to as the relation of concept-satisfaction – is a sui generis and primitive one. Also, there seems to be some consensus amongst them that if x falls under a concept, then there is nothing more fundamental in virtue of which it does so. (Certainly it does not do so in virtue of its possessing some property that is in some sense prior to its satisfaction of that concept.) But, on the other hand, there seems to be some disagreement amongst them over the issue of the ontological status of concepts themselves; for whereas some Concept Nominalists seem to identify concepts with certain spatial entities (e.g., patterns of neuronal activity, etc.), others seem to identify them instead with various non-spatial entities (e.g., parts of propositions). As has been noted, since at least some of these non-spatial entities are to be regarded as types, there is a case to be made that at least some of the instances of the latter version of the view do not count as genuine versions of Nominalism about universals.[50] Nevertheless, since my primary concern in this essay is not with the problem of universals, but with the problem

[50] See Armstrong (1978a).

of property possession, for the sake of convenience, I will continue to refer to both versions of the view as versions of Concept Nominalism. Finally, it should be clear that both versions of the view count as genuine of Externalism. After all, no Concept Nominalist of whom I am aware seems to regard the concepts that an entity falls under as being parts of that entity.

In his *Nominalism and Realism*, David Armstrong argues that Concept Nominalism is false, since it fails to provide a necessarily true necessary condition for property possession. He writes:

> [I]t seems clear that the whiteness of a white thing is independent of the existence of a concept of whiteness in men's minds. There is something about a white thing that makes the concept of whiteness applicable to it. Concept Nominalism gives us no account of this something (1978a, p. 27).

As I reconstruct it, Armstrong's argument is as follows. Let us assume that there is at least one entity, x, that possesses the property of being white. According to Concept Nominalism, for x to possess this property is for x to fall under the concept of a white entity. Now we can imagine a situation in which x continues to possess the property of being white even though the concept of a white entity has ceased to exist. But if we can imagine such a situation, then it is not necessarily the case that if x possesses the property of being white, then x falls under the concept of a white entity. Thus, Concept Nominalism is false, since it fails to provide a necessarily true necessary condition for property possession.

What is to be made of this argument? On the one hand, I grant that it refutes at least some of the versions of Concept Nominalism that identify concepts as spatial entities. But, on the other hand, I deny that it refutes all of the versions of that view that identify concepts as non-spatial ones. After all, presumably the proponents of at least

some of the versions of the view will regard those non-spatial entities as existing necessarily. If those entities exist necessarily, however, then trivially there will not be case in which x continues to possess the property of being white even after the concept of a white entity has ceased to exist. Thus, what is needed is an alternative argument against Concept Nominalism, one which refutes all versions of that view.

My argument against Concept Nominalism is as follows:

(P1) If Concept Nominalism is true, then given any x, x possesses all of its properties extrinsically.

(P2) If x possesses all of its properties extrinsically, then it is utterly arbitrary which concepts are the ones under which x falls.

(P3) If it is utterly arbitrary which concepts are the ones under which x falls, then x does not possess any properties essentially.

(P4) If Concept Nominalism is true, then given any x, x does not possess any properties essentially.

(P5) There is at least one entity that possesses at least one property essentially.

(C) Concept Nominalism is false.

First of all, the argument is obviously valid: (P4) follows from (P1), (P2) and (P3) by hypothetical syllogism, and (C) follows from (P4) and (P5) by modus tollens. Furthermore, (P1) is obviously true, given the nature of the account of property possession provided by Concept Nominalism. (P2) and (P3) also seem true, and here my reasoning is much the same as it was in the case of Predicate Nominalism. If Concept Nominalism is true, then since no entity will possess any property intrinsically, there will be nothing that entity is like considered in and of itself, in which case, since it will be

entirely arbitrary which concepts are the ones under which it falls, that entity will not possess any properties essentially, according to the view on property possession given by that view. Finally, (P5) was argued for in the previous chapter. Thus, the argument is not only valid, but sound.

Against Class Nominalism. Class Nominalism is the view that for an entity to possess a property is for that entity to be a member of a certain class, e.g., the class of all and only red entities. Of course, to avoid the charge of circularity, the Class Nominalist must claim that classes are "given in extension." As far as I am able to determine, all Class Nominalists regard the relation of x's being a member of y as a primitive.[51] Finally, it should be obvious that Class Nominalism is a version of Externalism. After all, no Class Nominalist of which I am aware regards the classes to which an entity belongs as parts of that entity.

In his *Nominalism and Realism*, David Armstrong argues that Class Nominalism is false, since it fails to provide a necessarily true necessary condition for property possession. He writes:

> Consider a particular white thing. It is a member of the class of white things; and according to the Class Nominalist its whiteness is constituted by membership of that class. But not let us imagine that the remainder of the class does not exist. The white thing will be left alone with its unit-class. But may it not still be white? So the remainder of the class has nothing to do with its whiteness (1978a, p. 37).

As I reconstruct it, Armstrong's argument is as follows. First, let us assume that there is at least one entity, x, that possesses the property of being white. According to Class Nominalism, for x to possess the property of being white is for x to be a member of the class of all and only white entities. Let us refer to this class as W. Now we can well

[51] This seems to be a result of the fact that all or at least most set theorists do the same.

imagine a situation in which, even though x continues to possess the property of being white, the remainder of W suddenly ceases to exist for whatever reason. In that case, however, we can imagine a situation in which, even though x continues to possess the property of being white, W itself ceases to exist.[52] But if we can imagine such a situation, then it is not necessarily the case that if x possesses the property of being white, then x is a member of W. Thus, Class Nominalism is false, since it fails to provide a necessarily true necessary condition for property possession.

Despite whatever plausibility Armstrong's argument may have, however, the Class Nominalist has a straightforward objection to it; for presumably that Nominalist will claim that since all classes exist eternally, they will continue to exist even if some or all of their elements cease to exist. Now if all classes continue to exist even if some or all of their elements cease to exist, then W will continue to exist even after the remainder of W ceases to exist. But if W continues to exist even though the remainder of W ceases to exist, then trivially there will be no situation in which, even though x continues to possess the property of being white, W has ceased to exist. Thus, according to the objection, Armstrong has not shown that Class Nominalism is false, since it fails to provide a necessarily true necessary condition for property possession. Hence, an alternative argument against Class Nominalism is required.

My argument against Class Nominalism is as follows:

(P1) If Class Nominalism is true, then given any x, x possesses all of its properties extrinsically.

[52] One might object that this premise is not contained in the passage quoted above. But if one denies that this premise is involved in that argument, then that argument will constitute an argument not against Class Nominalism, bur rather certain versions of Resemblance Nominalism.

(P2) If x possesses all of its properties extrinsically, then it is utterly arbitrary which classes are the ones of which x is a member.

(P3) If it is utterly arbitrary which classes are the ones of which x is a member, then x does not possess any properties essentially.

(P4) If Class Nominalism is true, then given any x, x does not possess any properties essentially.

(P5) There is at least one entity that possesses at least one property essentially.

(D) Class Nominalism is false.

First of all, the argument is obviously valid: (P4) follows from (P1), (P2) and (P3) by hypothetical syllogism, and (C) follows from (P4) and (P5) by modus tollens. Furthermore, (P1) is obviously true, given the nature of the account of property possession provided by Class Nominalism. (P2) and (P3) also seem true, and here my reasoning is much the same as it was in the case of Predicate Nominalism. If Class Nominalism is true, then since no entity will possess any property intrinsically, there will be nothing that entity is like considered in and of itself, in which case, since it will be entirely arbitrary which classes are the ones to which it belongs, that entity will not possess any properties essentially, according to the view on property possession given by that view. Finally, (P5) was argued for in the previous chapter. Thus, the argument is not only valid, but sound.

Against Resemblance Nominalism. In a recent work, Gonzalo Rodriguez-Pereyra seeks to breath new life into the doctrine of Resemblance Nominalism. According to that view, for a particular to possess a property is for it to resemble the members of a certain

resemblance-community. His efforts are to be commended, as he is able to provide respectable replies to certain objections that have long been thought to undermine the view. At the same time, however, there is an objection to the view that he fails to consider. According to it, Resemblance Nominalism is false, since whereas the possession of properties by particulars is, at least on some occasions, a mind-independent phenomenon, resemblance between particulars is always a mind-dependent one. The purpose of this section is to defend such an objection. As far as I am able to determine, this objection to Resemblance Nominalism is a novel one.

The plan of the paper is as follows. In section 3.4a, I examine Rodriguez-Pereyra's version of Resemblance Nominalism. In section 3.4b, I argue that resemblance between particulars is a mind-dependent phenomenon. And in section 3.4c, I utilize the result of the previous section to show that Resemblance Nominalism is false.

Rodriguez-Pereyra's version of the view. In this section, I examine Rodriguez-Pereyra's Resemblance Nominalism.[53] The aim in doing so, however, is not to give an exhaustive treatment of the view. Rather, the aim is to describe its general outline, and to highlight several particular aspects that will be of importance for our purposes in later sections.

According to Rodriguez-Pereyra's Resemblance Nominalism, for a particular to possess a property is for that particular to resemble the members of a certain resemblance-community. For example, according to him, for a particular to possess the property of being red is for that particular to resemble the resemblance-community of all and only red particulars. As he puts it, in general "what makes an F-entity F is that it

[53] All references to Rodriguez-Pereyra's writings are to his (2002).

resembles the F-entities" (p. 4). To be sure, Rodriguez-Pereyra formulates his version of Resemblance Nominalism in this passage, and in others, in terms of the notion of a truth maker.[54] But there are other places in which he makes clear that his view also provides an *account* of what it is for a particular to possess a property in terms of resemblance.[55]

Of course, even at this early point in our discussion of Resemblance Nominalism, it should already be clear that this view faces a potential problem, which is the problem of specifying the members of a resemblance-community in a non-circular manner. For example, how are the members of the class of all and only red particulars to be specified without making recourse to a property of being red that is somehow prior to the relations of resemblance that the particulars of that community bear to each other? One way to attempt to solve this problem is to adopt what is known as an Aristocratic version of Resemblance Nominalism, according to which a particular is a member of a given resemblance-community just in case that particular resembles the paradigm associated with that class (e.g., the paradigm of a red particular, such as a red, rubber ball). Rodriguez-Pereyra does not adopt this version of the view, however. Instead, he adopts what he calls an Egalitarian version of the view. According to it, a particular's membership in a resemblance-community consists not in that particular's resemblance to a paradigm, but rather in that particular's bearing a potentially very complicated series of relations to various other particulars that are all on par with respect to their all being members of that community. The exact details of this series of relations need not concern us here.

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[54] For the details of his view of truth makers and how that view relates to his Resemblance Nominalism, see his (2002, ch. 2).

[55] For example, see his (2002, p. 40).

There are three implications of Rodriguez-Pereyra's version of Resemblance Nominalism that should be noted at this point. The first is that according to Rodriguez-Pereyra's version of Resemblance Nominalism, the relation of resemblance between particulars is to be treated as a primitive. In other words, according to his version of that view, particulars do not resemble each other in virtue of their sharing some prior property in common with each other. Instead, according to his version of that view, if some particulars share a property in common with each other, they do so in virtue of their resembling one another. He writes:

> Let me now consider the primitiveness of resemblance. By calling it 'primitive' all I mean is that Resemblance Nominalism does not account for the facts of resemblance it invokes in terms of any other, more basic kinds of facts. If *a* and *b* resemble each other, there is no other fact to which the resemblance between *a* and *b* reduces (p. 63).

Of course, at this point there will be those who object that this is to put the cart before the horse. For example, Armstrong has written:

> On the Resemblance analysis, *a*'s being F is constituted by *a*'s relations of resemblance to other objects… But, once again, it seems obvious that there must be a "ground" in the object *a*… which determines these relations. It is natural to assert that things resemble because they have something in common, counter-intuitive to say that they have something in common because they resemble each other (1978, p. 50).

As far as I am able to determine, Rodriguez-Pereyra does not provide an argument that resemblance between particulars is a primitive notion. To his credit, however, his stated aim is not to offer such an argument. Instead, his aim is to show the superiority of Resemblance Nominalism by showing that it is capable of overcoming certain internal objections (e.g., Goodman's imperfect community objection) and that it has certain theoretical virtues (e.g., ontological economy). It is certainly true that one still might find this strategy ultimately dissatisfying. But thankfully the issue of whether or not

resemblance between particulars is a primitive notion does not need to be settled here, as nothing in my argument turns on its resolution. So for that reason, I will simply set it aside at this time.

The second implication is that according to him, resemblance between particulars is a two-place relation. In claiming that resemblance between particulars is a two-place relation, he intends to rule out the possibility of a particular in a resemblance-community with three or more members simultaneously bearing that relation to all of the members of that community. Instead, according to him, the relation of resemblance will obtain between all pairs of particulars within such a community. Of course, to claim that resemblance between particulars is a two-place relation is not to claim that no particular can resemble itself. Instead, it is to claim that it is either a relation that relates two numerically distinct particulars to each other, or a relation that relates a particular to itself.[56] On the other hand, Rodriguez-Pereyra neglects to consider the possibility that resemblance between particulars is a three-place relation in the sense that it obtains between two particulars and a mind for whom those particulars resemble each other. I will return to this point below.

The third is that according to Rodriguez-Pereyra, resemblance between particulars is a mind-independent phenomenon. As he puts it, resemblance between particulars is ontological and objective. He writes:

> That resemblance is ontological and objective means that resemblance facts, for example, that *a* resembles *b*, obtain independently of any system of representation which human beings or any other cognizers might happen to use. Resemblance facts are as objective and ontological as facts about particulars having properties are (2002, p. 62).

[56] For the details, see his (2002, p. 80).

As far as I am able to tell, however, Rodriguez-Pereyra nowhere provides an argument for the claim that resemblance between particulars is a mind-independent phenomenon. Instead, it seems just to be an assertion on his part. Obviously, this is also an issue I will return to below.

The mind dependence of resemblance. In this section, I argue that resemblance between particulars is a mind-dependent phenomenon.

Historically speaking, it has long been thought that one of the virtues of Realism about universals is the analysis it affords of resemblance between particulars. According to this analysis, for two particulars to resemble each other in a certain respect is for those two particulars to share a universal in common. For example, according to this analysis, for two particulars to be red is for those particulars to share the universal Redness. While some Realists regard universals as being transcendent (or non-spatial) in nature, whereas others regard them as being immanent (or spatial), this inter-mural dispute between the Realists is not pertinent to our purposes.[57] On the other hand, it should be noted that the analysis that the Realist gives for resemblance between particulars is to be distinguished from the one that he or she gives for resemblance between universals; for quite often, there are significant differences between the two analyses.[58] In this section, I am only concerned with the issue of resemblance between particulars, not with the issue of resemblance between properties.

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[57] For a recent defense of Transcendent or Platonic Realism, see Fales (1991). For a defense of Immanent Realism, see Armstrong (1978a).

[58] For an influential account of resemblance between universals, see Armstrong (1978b).

The Realist's analysis of resemblance between particulars has not been without its fair share of controversy. Nominalists have long argued that it is not necessarily the case that if two particulars resemble each other in some respect, then those particulars share a universal in common. For example, Trope Theorists often argue that two particulars can still both be red even if there is no such thing as the universal Redness. Instead, they argue that those two particulars will be red if each particular has its own unique instance of redness, i.e., its own unique red trope. For my part, I am inclined to believe that the Trope Theorist's argument constitutes a successful refutation of the Realist's analysis of resemblance between particulars. Still, this is not the pertinent issue insofar as our present purposes are concerned.

Instead, I wish to claim that there is a second objection that one might raise against the Realist's analysis of resemblance between particulars, which has long been overlooked. According to this objection, since resemblance between particulars is a mind-dependent phenomenon in the sense that two particulars resemble each other only if there is some mind for whom those particulars resemble each other, even if we simply grant for the sake of the argument that there are such things as universals, it is still not necessarily the case that two particulars will resemble each other, even granting that those particulars share a universal in common. It is important to note that if resemblance is a mind-dependent phenomenon in the sense described, then this objection too will constitute a successful refutation of the Realist's analysis of resemblance between particulars. After all, it follows that if resemblance between particulars is a mind-dependent phenomenon in the sense described, then if at some point all minds cease to exist for whatever reason (or if there had been no such things as minds in the first place),

then even if we assume that universals exist, no particular will resemble any other, even if there is some universal that all particulars have in common with each other.

Prior to explaining why resemblance between particulars is a mind-dependent phenomenon, there are two further points concerning this objection to the Realist's analysis of resemblance between particulars that should be noted. The *first* is that there is a sense in which this objection is the converse of the one made by the Trope Theorist; for whereas according to the Trope Theorist's objection, the Realist's analysis is false because it is not necessarily the case that two particulars resemble each other only if they share a universal in common, according to the objection now under consideration, that analysis is false because it is not necessarily the case that two particulars share a universal in common only if they resemble each other. The *second* is that since the objection now under consideration is presented in such a way that it actually presupposes the existence of universals, that objection obviously does not constitute a successful refutation of Realism about universals *per se*, as opposed to the Realist's analysis of resemblance between particulars. Even so, there are still two qualifications that I wish to place on this last point. The first is that that even though the objection has been presented in such a way that it does not constitute a refutation of Realism, this does not preclude the possibility of its being re-presented in such a way that it does constitute such a refutation.[59] And the second is that even if this objection ultimately does not give rise to a refutation of Realism about universals in the end, it does give rise to a refutation of Resemblance Nominalism, as we will see in the next section.

[59] This is not to say that no such objection can be raised against Realism itself. However, while I do think that such an objection can be raised, time and space precludes my raising it here.

So why is resemblance between particulars a mind-dependent phenomenon? The reason is that it is not a two-place relation that particular x and particular y bear to each other, as some have thought.[60] Instead, it is a three-place relation that particular x and particular y bear to a mind for which those particulars resemble each other.[61] What does it mean to claim that resemblance between particulars is a three-place relation in this manner? Certainly it does not mean that all three relata must resemble each other in the very same respect. For example, if there is some mind that perceives the resemblance between two red, rubber balls, to claim that resemblance between these two objects is a three-place relation that relates those balls to that mind is not to claim that the mind is also red, much less spherical, made of rubber, and so forth. Instead, to claim that resemblance is a three-place relation in this manner is to claim that for that relation to obtain, at least one of its relata must be a mind for whom the other two relata resemble each other. But if resemblance between particular is a three-place relation, at least one of the relata of which is required to be a mind, then since the obtaining of this relation will be mind-dependent, resemblance between particular is a mind-dependent phenomenon.[62]

Of course, at this point one might object my view is too strong. According to this objection, it is not the case that two particulars resemble each other only if there is

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[60] To say that a relation is a two-place relation is not necessarily to claim that it can only ever obtain between two entities, i.e., entities that are numerically distinct from each other. Some two-place can relate various entities to themselves. Some have claimed that identity is one such relation.

[61] Just as to say that something is a two-place relation only if it obtains between two numerically distinct entities, to say that resemblance between particulars is a three-place relation that x and y bear to a mind is not necessarily to say that x and y are numerically distinct from each other. I also claim that if particulars can resemble each other in the first place, a particular's resemblance to itself is also a mind-dependent phenomenon.

[62] Certainly there is the issue of what counts as a mind in this context. It is important not to make the conditions on what counts as a mind too liberal; for to do so would be to make far too many devices capable in some sense of detection count as minds for my taste. Unfortunately, time and space prevent me from going into this issue here. I presume that the basic idea is clear enough. Human minds, of course, suffice for minds in the relevant sense. Perhaps lots of other non-human animal minds do as well.

actually some mind for whom those particulars resemble each other. Instead, according to the objection, two particulars resemble each other only if it is possible for there to be a mind for which they resemble each other. But this objection is implausible. To be sure, one might claim to be able to imagine a possible world utterly devoid of minds in which lots of particulars nevertheless resemble each other in various respects. But by adopting the God's-eye point of view of this world, one thereby makes oneself the mind for which those particulars actually resemble each other in that world.

On the other hand, one might also object that resemblance between particulars cannot be a mind-dependent phenomenon, since this would imply that the existence of properties is also mind-dependent. But this objection is inadequate, as this implication does not go through. To see this point clearly, let us assume that particulars x and y both possess the universal Redness at time t1.[63] For example, let us say that x and y are two numerically distinct red, rubber balls. Perhaps there is some mind for whom x and y resemble each other at t1 (e.g., perhaps a child is examining them side by side), or perhaps not (e.g., perhaps they are buried at the bottom of the child's toy box); it does not matter for present purposes. I claim that if all minds suddenly cease to exist for whatever reason at time t2, then even though x and y can continue to possess the universal Redness at that time, x and y will no longer resemble each other at that time, even assuming that they once did. Perhaps at t2 some plague simply wipes out all minds but leaves everything else untouched. It is also important to note that much the same result can still be achieved even if we assume that all properties are tropes. For even if x and y resemble each other at t1, if all minds cease to exist at t2, then even though x and y can continue to

[63] While this, of course, is not an assumption that is open for the Resemblance Theorist to make, there is a sense in which this is so much the worse for the Resemblance Theorist, as I will argue below.

possess their own unique instances of redness (i.e., their own red tropes), they will no longer resemble each other at t2. Of course, at this point one might allege that, Realism about universals and trope theory notwithstanding, if Resemblance Nominalism is true, then if resemblance between particulars is a mind-dependent phenomenon, this will imply that the existence of properties is also mind-dependent. But as I will argue in the next section, since this allegation is correct, that is so much the worse for Resemblance Nominalism.

Certainly at this point one might object that by claiming that resemblance is mind dependent, I am conflating the judgment of resemblance between particulars with that resemblance itself. But what I am contending is that there is no such thing as resemblance between particulars that does not essentially involve the judgment of it.

Of course, at this point one might object that this claim implies that resemblance is subjective. But this objection is also inadequate; since the claim that resemblance between particulars is a mind-dependent phenomenon is perfectly compatible with the claim that such resemblance is perfectly objective. To see this point clearly, let us consider two rubber balls, both of which are spherical in shape, one of which is red, the other of which is blue. It does not matter for present purposes whether there is a universal property of being spherical that both balls share, or whether each ball has its own unique instance of being spherical. And it does not matter whether the color properties that the balls possess are universals or particulars. Now, first of all, the fact that the two balls do not resemble each other with respect to their color is perfectly objective in the sense that no mind that is properly functioning (e.g., is not hallucinating, is not impaired, etc.) and properly situated (e.g., in close proximity to the balls, is in good

light, etc.) will observe a resemblance between those particulars with respect to their color. Secondly, the fact that the balls resemble each other with respect to their shape is objective in the sense that any mind that is both properly functioning and situated will observe a resemblance between those particulars with respect to their shape. But even though these facts of resemblance or the lack thereof are objective, the resemblance between the rubber balls with respect to their shape is mind dependent in the sense that if all minds cease to exist (or just leave the room), those balls will not longer resemble each other in that respect, assuming that they once did. Thus, even if judgment of resemblance is essential to resemblance itself, this does not imply that this judgment must be subjective.

Then again, one might even object that resemblance between particulars cannot be a mind-independent phenomenon, since this would imply that such resemblance is a created, as opposed to a discovered, feature of the world. But while this objection is correct as far as it goes, it is important to stress what it does not imply. First of all, even though resemblance between particulars is created in the sense that it comes to be only in the presence, and through the activities, of a properly functioning and situated mind, this does not imply that such resemblance can continue to have an existence independent of the presence of such a mind. In other words, such resemblance does not take on a life of its own once created. Second, even though resemblance between particulars is created, this does not imply that the properties possessed by particulars are also created in such a manner. Nor is it to say that resemblance between particulars is in any way subjective or relative. Rather, it is simply the case that, given that certain entities possess certain

properties, it will objectively be the case that those particulars either resemble each other for some mind or not, as the case may be.

The argument. In the previous section, I argued that resemblance between particulars is a mind-dependent phenomenon. In this section, I utilize that result to argue that Resemblance Nominalism is false.

Unlike resemblance between particulars, which was argued in the previous section to be a mind-dependent phenomenon, the possession of properties by particulars is, at least in some cases, a mind-independent one.[64] That is to say, whereas no particulars will continue to resemble each other if all minds suddenly cease to exist for whatever reason, presumably there is at least one particular that would continue to possess at least one property even if all minds ceased to exist in such a manner. To be sure, one might attempt to reject the latter claim. But it really does seem implausible to claim that if all minds suddenly ceased to exist, then all entities would simultaneously undergo the kind of *change* that they would be required to undergo were they to lose all of their properties. Of course, one the other hand, one might also object that if all particulars suddenly cease to resemble each other, this would require those particulars to undergo a similar sort of change. But insofar as the change that these particulars would undergo in such a case would be that they are no longer observed, this change, if we even wish to call it that, would be of the extrinsic, as opposed to the intrinsic, sort. In any case, Rodriguez-Pereyra affirms his commitment to the claim that the possession of

[64] One case in which the possession of a property by a particular is a mind-dependent phenomenon is, of course, the one in which that property is possessed by a mind alone.

properties by particulars is by and large a mind-independent phenomenon, as we have seen. It is sufficient for our purposes that this point be noted.

Given that the possession of properties by particulars is, at least in some cases, a mind-independent phenomenon, there is the following argument that Resemblance Nominalism is false.

(P1) If Resemblance Nominalism is true, then for a particular to possess a property is for that particular to resemble the members of a certain resemblance-community.

(P2) If for a particular to possess a property is for that particular to resemble the members of a certain resemblance-community, then since resemblance between particulars is always a mind-dependent phenomenon, the possession of properties by particulars is always a mind-dependent phenomenon.

(P3) Thus, if Resemblance Nominalism is true, then the possession of properties by particulars is always a mind-dependent phenomenon.

(P4) But the possession of properties by particulars is at least sometimes a mind-independent phenomenon.

(C) Thus, Resemblance Nominalism is false.

Now the argument is obviously valid: (P3) follows from (P1) and (P2) by hypothetical syllogism, and (C) follows from (P3) and (P4) by modus tollens. But (P1) was shown to be true in section one; (P2) was argued to be true in section three; and (P4) was argued for just above. Thus, the argument is not only valid, by sound.

At this point, by way of conclusion, it should be noted that the preceding argument is sufficient to refute all standard versions of Resemblance Nominalism, not just Rodriguez-Pereyra's own. Of course, one might attempt to put forward a non-standard version of that view according to which the possession of properties by particulars is in all cases a mind-dependent phenomenon. But as I argued above, such a view would be implausible on independent grounds.

Against Traditional Externalism. At this point, it should be noted that all of the preceding versions of Externalism considered (with the exception of Concept Nominalism) have been propounded only fairly recently in an attempt in an attempt either to eliminate properties outright or to reduce them to entities that are supposedly less *metaphysical* in the pejorative sense of the term. But there is another, more traditional, version of Externalism according to which for x to possess a property is for x to bear a certain relation to what I will call a genuine property that is external to x in the sense specified above. According to some versions of Traditional Externalism, this property is to be identified as a universal. For example, according to Bergmann, for a particular to possess a property is for that particular to exemplify a universal.[65] According to other versions, the relevant property is to be identified as a particular. For example, as we will see in the following section, according to Plato, for a sensible, changing thing to possess a property is for that thing to participate in a particular form. But despite whatever differences there are between the various versions of Traditional Externalism, they all suffer from the same problem that we saw besets the other versions of Externalism

[65] See his (1994).

described above. That is to say, Traditional Externalism in general falls prey to the following argument:

(P1) If Traditional Externalism is true, then given any x, x possesses all of its properties extrinsically.

(P2) If x possesses all of its properties extrinsically, then it is utterly arbitrary which classes are the ones of which x is a member.

(P3) If it is utterly arbitrary which classes are the ones of which x is a member, then x does not possess any properties essentially.

(P4) If Traditional Externalism is true, then given any x, x does not possess any properties essentially.

(P5) There is at least one entity that possesses at least one property essentially.

(E) Traditional Externalism is false.

Thus, my problem with Externalism is not primarily that it identifies properties with entities with which they should not be identified (e.g., classes, predicates, and so forth). Rather, my problem is with the relation it says obtains between those properties and the entities said to possess them.

The view of Plato. In this section, I examine Plato's view on property possession. The discussion is split into several sub-sections. In the first, I examine his view on what it is for a sensible, changing thing to posses a form as a property (e.g., what it is for a painting to be beautiful). In the second, I examine his view on what it is for one form to possess a second form as a property (e.g., what it is for the form of the Just to be beautiful). And in the third, I examine his view on what it is for a form to possess itself as a property (e.g.,

what it is for the form of Beauty to be beautiful). As I will explain below, I regard this last view as an historical precedent for my own account of property possession.

Plato's view for sensible things. It is often alleged that Plato adopts the view according to which if a sensible, changing thing participates in a form, then that form causes that thing to resemble that form in a specific respect. For example, according to this view, if a sensible, changing thing participates in the form of Beauty, then that form causes that thing to be beautiful. I refer to this view as *forms as causes*, or FAC. In this section, I have two aims. The first is to show that Plato is not committed to the truth of FAC. And the second is to show that he is committed instead to the truth of the view according to which if a sensible, changing thing participates in a form, then the Demiurge uses that form as a model or template by which to cause that thing to resemble that form in a specific respect, and does so for the sake of the good.[66] For example, according to this view, if a sensible, changing thing participates in the form of Beauty, then the Demiurge uses that form as a model by which to cause that thing to be beautiful, and does so for the sake of the good. I refer to this view as the *Demiurge as cause*, or DAC.

The plan of the discussion is as follows. The *Phaedo* is the locus classicus of the view that Plato is committed to the truth of FAC. So in section 3.6.1a, I argue that Plato does not commit himself to the truth of that view in that dialogue. And in section 3.6.1b, I argue that Plato commits himself to the truth of DAC in the *Timaeus*.

Prior to proceeding, there are three preliminary questions that need to be addressed, which are pertinent not only to the present discussion, but also to the argument

[66] In this context, since 'paradigm', 'model' and 'template' are all used synonymously, for the sake of brevity from now on I will only use the first term.

of chapter three. *First*, which sort of causation is implicated by the claim that if a sensible, changing thing participates in a form, then that form causes that thing to resemble that form in a certain respect? While some contemporary interpreters of Plato refer to this as Platonic causation, and others claim that Plato's theory of forms incorporates what they call a transmission theory of causation (about which I will have more to say below), I will follow an older tradition, rooted in the writings of Aristotle, by referring to it as formal causation.[67] Of course, at this point one might object that while Aristotle did indeed speak of certain things (e.g., substantial forms) as formal causes, he did not recognize a relation of formal causation. But this objection is implausible, since it is difficult to see how there could be such a thing as a formal cause in the first place if there were no such thing as formal causation. On the other hand, one might also object that the Greek term 'άιτια' in Aristotle's writings ought to be translated as 'principle', not as 'cause.' But this objection is also implausible, since Aristotle clearly uses 'άιτια' to signify a cause on those occasions on which he discusses efficient causation. Of course, one might object that he did not intend the term 'άιτια' to signify causation on those occasions on which he speaks of formal causes. But even if this is correct, there is a long tradition of thinking that according to Plato, the forms bear a certain causal relation to the sensible, changing things that participate in them. Traditionally, this relation has been referred to as formal causation.

Obviously, the next question to be asked is: What exactly is formal causation? Unfortunately, Aristotle does not seem to define this notion and, as far as I am able to determine, it is not defined by any other interpreters of Plato. Thankfully, a definition of this notion is not required for our present purposes; for we can make do with the

[67] I will have more to say about the transmission theory below.

following necessary condition, which seems universally accepted by those who regard Plato's theory of forms as incorporating the notion of formal causation: If a form bears the relation of formal causation to an entity, then that form contributes something to that entity, thereby making that entity resemble that form in a certain respect. For example, according to this condition, if the form of Redness bears the relation of formal causation to an entity, then that form contributes something to that entity, thereby making that entity red.

Of course, at this point one might object that this answer to the second question actually raises more questions than it settles. First of all, if the form of Redness bears the relation of formal causation to an entity, then *what* exactly does that form contribute to that entity to make it red? According to Dancy, a chief proponent of the claim that Plato adopts a transmission theory of causation, Plato believes that if a sensible, changing thing participates in the form of F, then that form contributes Fness or its own being F to that thing. He writes:

> In the early dialogues, Socrates occasionally imports a presupposition about what can explain something's being F to the effect that what makes things F must itself be F; it makes thing F by transmitting its Fness to them. This is the beginning of a theory of causality. Let us call any theory that employs this presupposition a "Transmission Theory" of Causality. The cause, whatever it is, is a "transmitting cause" of other things' being F. The Theory of Forms is going to incorporate a Transmission Theory of Causality: the Form, the F, will make things F by transmitting its own being F to those things (2004, p. 148).

Others have claimed that according to Plato, if a sensible, changing thing participates in a form, then that form contributes a form-copy of itself to that thing, thereby making that thing resemble that form in a certain respect. Of course, it is somewhat difficult to see what Fness, the form of F's being F or a form-copy could amount to on Plato's ontology.

Certainly they cannot amount to the form of F itself, given that according to Plato, forms and sensible, changing things are separate from each other. Indeed, according to Aristotle, given that the forms and sensible, changing things are separate from each other, since for this reason it is so exceedingly difficult to see what a form could contribute to such a thing to make it resemble that form in a certain respect, this is chief among the reasons why Plato's theory of forms ought to be rejected. He writes: "Above all one might discuss the question of what on earth the Forms contribute to sensible things, either to those that are eternal or to those that come into being and cease to be. For they cause neither movement nor any change in them" (*Metaphysics* 991a 8-9). Second, putting to the side for a moment the issue of what forms contribute to the sensible, changing things to which they bear the relation of formal causation, if a form bears the relation of formal causation to a sensible, changing thing, then *how* does that form contribute whatever we ultimately decide it contributes to that thing, thereby making it resemble that form in a certain respect? As we have seen, according to Dancy, Plato believes that if a sensible, changing thing participates in the form of F, then that form transmits Fness or its of being F to that thing. But the notion of transmission crucially involves the notion of a medium for that transmission. Yet it is difficult to see just what sort of medium could connect sensible, changing things to the forms in which they participates, given that according to Plato, again, they are separate from each other. Thankfully, neither of these questions needs to be settled here, as nothing in my argument in this section turns on their resolution. However, I will return to discuss them again in chapter three, within the context of my positive argument for my own account.

The third question is this: What kind of causation is invoked by the claim that if a sensible, changing thing participates in a form, then the Demiurge uses that form as a template by which to cause that thing to resemble that form in a certain respect? The short answer to the question is that this type of causation is agent causation. As we will see below, the full answer to the question is somewhat more involved.

Plato and FAC[68] According to what I take to be the orthodox interpretation of Plato's theory of forms, he commits himself to the truth of FAC in the *Phaedo*. But there are two reasons why this interpretation is mistaken. The first is that there is actually insufficient textual support in that dialogue for the claim that Plato commits himself to the truth of FAC.

As far as I am able to determine, there are five passages in the *Phaedo* that one might take to support the claim that Plato is commits himself to the truth of FAC in that dialogue. The first is as follows:

> This, Socrates said, is what I mean. It is nothing new, but what I have never stopped talking about, both elsewhere and in the earlier part of our conversation. I am going to try to show you the kind of cause with which I have concerned myself. I turn back to those oft-mentioned things and proceed from them. I assume the existence the Beautiful, itself by itself, of the Good, and the Great and all the rest. I you grant me these and agree that they exist, I hope to show you the case as a result, and to find the soul to be immortal (100b1-b9).

Now, on the one hand, it is easy enough to see from a cursory reason of this passage why one might be inclined to identify the case to which Socrates alludes with the forms to which he refers. But, on the other hand, to claim that the forms exist and that we can proceed on the basis of their existence to show the cause as a result is not necessarily to claim that these forms are that cause. After all, the former claim only amounts to the

[68] All translations in this section are from Cooper (1997).

contention that the relevant cause depends in some sense upon the forms. Thus, that claim is perfectly compatible with the clam that if a sensible thing participates in a form, then that thing is caused to possess the distinctive nature associated with that form by something other than that form itself.

The second passage is this:

> Consider then, Socrates said, whether you share my opinion as to what follows, for I think that, if there is anything beautiful besides the Beautiful itself, it is beautiful for no other reason than that it share in that Beautiful, and I say so with everything. Do agree to this sort of cause? (100c1-c9)

But if Socrates identifies the cause of a sensible thing's being beautiful with anything at all in this passage, he identifies it with that thing's participating or sharing in the form of Beauty. In that case, there would be something more to the case of that thing's being beautiful than just that form; for that cause would also consist of the relation of participation or sharing that obtains between that thing and that form. Thus, this passage cannot be taken as conclusive support for the claim that Plato is committed to the truth of FAC.

The third passage is the following:

> I no longer understand or recognize those other sophisticated causes, and if someone tells me that a thing is beautiful because it has a bright color or shape or any such thing, I ignore these other reasons – for all these confuse me – but I simply, naively and perhaps foolishly cling to this, that nothing else makes it beautiful other than the presence of, or the sharing in, or however you may describe its relationship to that Beautiful we mentioned, for I will not insist on the precise nature of the relationship, but that all beautiful things are beautiful by the Beautiful. That, I think, is the safest answer I can give myself or anyone else. And if I stick to this I think I shall never fall into error. This is the safe answer for me or anyone else to give, namely, that it is through Beauty that beautiful things are made beautiful (100d1-e8)

But there are two reasons why this passage cannot be taken as conclusive support for the claim that Plato is committed to the truth of FAC. The first is that since Socrates is so

non-committal about the exact nature of the relation that must obtain between a sensible thing and the form of Beauty for that thing to be beautiful, this seems to preclude the possibility of pinning down Plato's view on the basis of this passage. And the second is that the claim that sensible things are beautiful by or through the form of Beauty is actually compatible with DAC. After all, as we will see, it seems entirely appropriate to claim that according to that view, since the Divine Mind uses the form of Beauty as a model or template by which certain things to be beautiful, those things are beautiful by or though the form of Beauty in precisely that sense.

The fourth passage is as follows:

> And you would not accept the statement that one man is taller than another by a head and the shorter man shorter by the same, but you would bear witness that you mean nothing else than that everything that is bigger is made bigger by nothing else than by Bignes, and that this is the cause of its being bigger, and the smaller is made smaller only by Smallness and this is why it is smaller (100e9-101b3).

Now, on the one hand, the contention that a sensible thing is big by the form Bigness is certainly compatible with the claim that if a sensible thing participates in the form of Bigness, then that form causes that thing to be big. But, on the other had, as in the case of the previous passage, it is also compatible with the claim that if a sensible thing participates in the form of Bigness, then the Divine Mind uses that form as a template by which to cause that thing to be big. Thus, since a similar remark can be made with respect to Socrates' point about the form of Smallnes, this passage does not constitute conclusive support for the claim that Plato is committed to the truth of FAC, either.

The fifth and final passage is this:

> Then would you not avoid saying that when one is added to one it is the addition and when it is divided it is the division that is the case of two? And you would loudly explain that you do not know how else each thing can come to be except

> by sharing in the particular reality in which it shares, and in these cases you do not know of any other cause of becoming two except by sharing in Twoness, and that the things that are to be two must share in this, as that which is to be one must share in Oneness, and you would dismiss these additions and division and other such subtleties, and leave them to those wiser than yourself to answer (101c1-d1).

But, as in the case of the passage at 100c, this suggests that the cause of a sensible thing's being two is not the form of Twoness itself, but rather that thing's participating in that form. Thus, not even this passage constitutes conclusive support for the claim that Plato is committed to the truth of FAC.

To be sure, there are other passages in other dialogues besides the *Phaedo* that one might cite in support of the contention that Plato is committed to the truth of FAC. For example, one might cite the following passage from the *Euthyphro*, where Socrates states:

> Bear in mind then that I did not bid you to tell me one or two of the many pious actions but that form itself that makes all pious actions pious, for you agrees that all impious actions are impious and all pious actions pious through one form, or don't you remember? (6d-e)

But while the claim that a certain form makes all pious actions pious may seem to suggest that this form causes those actions to be pious, the claim that all pious actions are pious through a certain form clearly leaves open the possibility that what causes those actions to be pious is something other than that form itself.

The second reason why Plato does not commit himself to the truth of FAC in the *Phaedo* is that even if we grant that Socrates does express some support for that view in the passage we examined above, at 99d he refers to the view expressed in those passages as being second best. Thus, even if Socrates expresses support for FAC in the passages we examined, the fact that he does so cannot be taken as conclusive support for the claim

that Plato commits himself to the truth of that view in that dialogue, since Socrates regards that view as somehow falling short.

Instead of committed himself to the truth of FAC in the *Phaedo*, I believe that Plato commits himself to the truth of DAC in that dialogue. At 97c, after explaining why he became dissatisfied with the explanations afforded by the natural sciences, Socrates describes how be became enamored with a view he heard attributed to Anaxagoras, according to which mind is the cause of all things:

> One day I heard someone reading, as he said, from a book of Anaxagoras, and saying that it is Mind that directs and is the cause of everything. I was delighted with this cause and it seemed to me good, in a way, that Mind should be the cause of all. I thought that if this were so, the directing Mind would direct everything and arrange each thing in the way that was best (97b9-c8).

Note that according to the view expressed in this passage, there is such a thing as *the* (i.e., singular and unique) divine mind. And note that according to it, this mind arranges everything in the manner that is best. Taken together, these points seem to suggest that Plato commits himself to the truth of DAC in the *Phaedo*. After all, taken together, they seem to suggest that according to him, if a sensible thing participates in a form, then that thing is caused to possess the distinctive nature of the form, and is caused to do so for the sake of the good.

To be sure, Socrates eventually came to find that Anaxagoras actually did not hold the view he heard attributed to him. As Socrates put it:

> This wonderful hope was dashed as I went on reading and saw that the man made no use of Mind, nor gave it any responsibility for the management of things, but mentioned as causes air and ether and water and many other strange things. That seemed to me much like saying that Socrates' actions are all due to his mind, and then in trying to tell the causes of everything I do, to say that the reasons that I am sitting here is because my body consists of bones and sinews, because the bones are hard and are separated by joints, that the sinews are such as to contract and relax, that they surround the bones along with flesh and skin which hold them

> together, then as the bones are hanging in their sockets, the relaxation and contraction of the sinews enable me to bend my limbs, and that is the cause of my sitting here with my limbs bent (98).

Elsewhere, he complains that Anaxagoras failed to distinguish between "the real cause… and that without which the cause would not be able to act as cause" (99b1-2). Still, it certainly does not follow that since Anaxagoras did not hold the view in question, then Plato did not hold it, either. As I see it, in the *Phaedo* Plato gives us a kind of promissory note. He introduces a view on causation attributed to Anaxagoras, which he favors. He records his learning that Anaxagoras actually did not hold the view attributed to him. He discusses the view that he regards as being second best in relation to his preferred view. And he puts off the project of formulating that preferred view to another day, thereby effectively making a promissory note to formulate that view in another dialogue. As we will see in the next section, he makes good on that promissory note in the *Timaeus*.

Plato and DAC. In the previous section, I argued that Plato does not commit himself to the truth of FAC in the *Phaedo*. In this section, I argue that he commits himself to the truth of DAC in the *Timaeus*.

At 27d-28a, Plato draws a distinction between the realm of the forms and the realm of sensible, changing things, the latter of which, according to him, is in a state of constant Heraclitean flux. He writes:

> First, then, in my judgment, we must make a distinction and ask, What is that which always is and has no becoming, and what is that which is always becoming and never is? That which is apprehended by intelligence and reason is always in the same state, but that which is conceived by opinion with the help of sensation and without reason is always in a process of becoming and perishing and never really is.

Of course, one might object that this identification is a bit too quick. But if one wishes to identify that which always is and has no becoming with something other than the realm of the forms, it is not at all clear with what it is to be identified. Moreover, the distinction drawn in this passage seems to correspond to the one drawn in the *Republic* between the objects of knowledge and the objects of opinion. But this latter distinction is widely regarded as a distinction between the realm of forms and the realm of sensible, changing things.

At 28d, having drawn the distinction between the realms of forms and sensible, changing things, Plato claims that in creating the latter, the Demiurge looks to the former as a modal or template by which to create it. He writes:

> Which of the patterns had the artificer in view when he made [the world of sensible, changing things] – the pattern of the unchangeable or of that which is created? If the world be indeed fair and the artificer good, it is manifest that he must have looked to that which is eternal, but if what cannot be said without blasphemy is true, then to the created pattern. Everyone will see that he must have looked to the eternal, for the world is the fairest of creations and he is the best of causes.

It is important for our purposes to note that in this passage, Plato not only refers to the artificer as a cause of the creation of the world; he does not refer the eternal and unchanging pattern as a cause in its creation. Indeed, in suggesting that the eternal and unchanging pattern is a mere model or template, what this passage seems to suggest is that the forms are causally inert in relation to the realm of sensible, changing things.

Finally, at 29e, having claimed that the Demiurge looks to the realm of the forms as a model or template by which to create the world of sensible, changing things, Plato claims that the Demiurge was motivated to do so for the sake of what is best. He writes:

> Let me tell you then why the creator made this world of generation. He was good, and the good can never have any jealousy of anything. And being free from

> jealousy, he desired that all things should be as like himself as they could be. This is in the truest sense the origin of creation and of the world, as we shall do well in believing on the testimony of wise men. God desired that all things should be good and nothing bad, so far as this was attainable.

As Plato explains elsewhere, given that the world is made of matter, the world cannot be perfect. But even though it is not a perfect world, it is the best of all possible material worlds, given that the Demiurge, being free of jealousy, wished to create a world as much like himself as possible.

Given that according to Plato, the Demiurge uses the forms as templates by which to fashion the world of sensible, changing things, and does so for the sake of the good, this seems to suggest that Plato commits himself to the truth of DAC in the Timaeus. Of course, at this point one might object that even if this dialogue suggests that Plato believes that the Demiurge is causally responsible for the creation of the world, there is insufficient textual evidence to attribute to Plato the claim that the Demiurge is causally responsible for the character of the world. But this objection is implausible; for as we have seen, at 29e, Plato states that the Demiurge causes the world to resemble himself as much as possible. Now if the Demiurge causes the world to resemble himself, this seems that he is causally responsible not only for the existence of the world of sensible, changing things, but also for its character. Yet if the Demiurge is causally responsible for the character of the world of sensible, changing things, this seems to suggest that DAC is true.

On the other hand, one might also object that even if Plato claims in the *Timaeus* that the Demiurge is causally responsible for some portion of the total distribution of properties among sensible, changing thing, there is insufficient evidence in that dialogue to attribute to Plato the claim that the Demiurge is causally responsible for that

distribution of properties as a whole. But this objection is also implausible; for at 30c, and at various other points in the dialogue, Plato speaks of the world of sensible, changing things as an image of the Demiurge. Passages such as these seem to suggest that since there is a kind of one-to-one correspondence between the character of the Demiurge and the character of the world of sensible, changing things, the Demiurge will be causally responsible for the totality of the distribution of properties in that world. To be sure, in the dialogue Plato claims that necessity also has a large role to play in the formation of the sensible realm. But it is important to note that this fact does not contradict DAC. For as far as I am able to determine, according to Plato, necessity contributes to the formation of the sensible world by contributing to the structure under-girding of the distribution of properties of that world, not by contributing to that distribution itself. To borrow a distinction from Aristotle, necessity contributes to the matter of the world of sensible, changing things, not to its form.

A novel interpretation of Plato's theory of forms. As I see it, Plato's theory of forms divides into three component parts. The first is his view on what it is for a sensible, changing thing to possess a form as a property (e.g., what it is for a painting to be beautiful). The second is his view on what it is for one form to possess a second form as a property (e.g., what it is for the form of the Just to be beautiful). And the third is his view on what it is for a form to possess itself as a property (e.g., what it is for the form of Beauty to be beautiful). Traditionally, this last view has been referred to as Plato's view on the self-predication of the forms. But it is important to note that whereas the predication of properties of entities is a mind dependent phenomenon, the possession of

properties is not, or at least not to the same extent.[69] So for that reason, I will continue to refer to the last of these three views in the way in which I do.

There are a variety of passages in Plato's writings in which he seems to claim that various forms posses themselves as properties. For example, consider the following passage from the *Protagoras*:

> Socrates: Suppose he questioned us further: "Do you also say there is a thing called piety?" We would say we do, right?
> Protagoras: Right
> Socrates: "Do you say this too is a thing?" We would say we do, wouldn't we?
> Protagoras: That too.
> Socrates: "Do you say that this thing is by nature impious or pious?" Myself I would be irritated with this questions and would say, "Quiet, man! How could anything else be pious if piety itself is not?" What about you? Wouldn't you answer in the same way?
> Protagoras: Absolutely (330d1-e2).[70]

At the same time, however, there are scant few places in Plato's writings in which he delves into the issue of exactly what it is for a form to possess itself as a property. Of course, at this point one might be inclined to put this down to the fact that whenever he attempts to do so, he runs right smack into the problem of the third man regress. But as I will explain below, this problem is easily avoided if one adopts the interpretation of Plato's theory of forms that is based on my account.

One of the few passages in which Plato explicitly discusses what it is for a form to possess itself as a property is the following one from the *Parmenides*:

> And [the One] won't be different from another, as long as it is one; for it is not proper to One to be different from something, but proper to Different-From-Another alone, and to nothing else. – That's right. – Therefore it won't be

[69] The possession of properties by entities is mind-dependent precisely in those cases in which those properties are possessed by minds.

[70] See also the *Phaedo* 100c-d, where Plato seems to suggest that the form of Beauty is itself beautiful.

> different by being one. Or do you think it will? – No indeed. – Yet if it isn't different by being one, it will not be so by itself; and if it isn't so by itself, it will not itself be so. And if it is itself in no way different, it will be different from nothing. – That's right. – Nor will it be the Same as Itself. – Why not? – The nature of the One is not, of course, also that of the same. – Why? – Because it is not the case that, whenever a thing comes to be the same as something, it comes to be one. – But why? – If it comes to be the same as the many, it must come to be many, not one. – True. – But if the one and the same in no way differ, whenever something came to be the same, it would always come to be one; and whenever it came to be one, it would always come to be the same. – Certainly. – Therefore, if the One is to be same as itself, it couldn't be one with itself; and thus it will be one and not one. But surely this is impossible. Therefore the One can't be either different from another or the same as itself. – It can't. – Thus the One could neither be different from nor the same as itself or another. – Yes, you're quite right (139 c-d).

Now I admit that this is a difficult passage from an already difficult dialogue. But, nevertheless, in it Plato seems to be making the following two claims. The first is that even though the form of the One possesses what we might call the property of being different than another, that form's possession of that property and that form's being self-identical do not amount to one and the same phenomenon.[71] Instead, it seems that the form of the Different-Than-Another's possession of itself as a property and its being self-identical amount to one and the same phenomenon. The second is that even though the form of the One also possesses what we might call the form of being the same as oneself, not even this form's possession of this property and that form's being self-identical amount to one and the same phenomenon. Instead, it seems that the form of the Same-as-Oneself's possession of itself as a property and its being self-identical amount to one and the same phenomenon. Taken together, these two points seem to have the following two implications by parity of reasoning. The first is that the form of the One possesses itself as a property. And the second is that the form of the One's possession of itself as a property and its being self-identical amount to one and the same phenomenon. And it is

[71] I speak to the issue of exactly how to explicate this notion of *phenomenon* below.

this notion (i.e., the notion of a form's possession of itself as a property and its being self-identical amounting to one and the same phenomenon) that is the cornerstone of my interpretation of Plato's theory of forms.

How is this notion to be analyzed? There are two reasons why I do not attempt to analyze it in terms of a form's bearing the relation of participation to itself. The first is that, as far as I am able to determine, Plato regards the relation of participation as one that only ever obtains between entities that are numerically distinct from each other (i.e., between a sensible, changing thing and a form, or between one form and another). This is a point to which I will return below. And the second is that I do not believe that this notion is to be analyzed in terms of a relation in the first place, regardless of whether this relation is identified with participation or not.

Instead, to analyze the notion, I utilize the idea of properties as truth-makers. On my interpretation, according to Plato, given any form, the claim that this form possesses itself as a property and the claim that this form is self-identical are both true. On my interpretation, according to him, both claims have the very same truth-maker. And on my interpretation, according to him, that truth-maker is none other than that form itself. So, for example, on my interpretation, according to Plato, the claim that the form of Beauty is beautiful and the claim that the form of Beauty is the form of Beauty are both true. On my interpretation, according to him, both claims have the same truth-maker. And on my interpretation, according to him, that truth-maker just is the form of Beauty. In other words, on my interpretation, according to Plato, the form of Beauty is beautiful simply by virtue of its being the form of Beauty. And in this sense, on my interpretation, according to him, it is beautiful intrinsically.

Given this analysis, my interpretation of Plato's theory of forms can be stated quite simply as the conjunction of the following two claims. The first is that according to Plato, if a thing possesses a form as a property, then if that thing is numerically identical to that form, then that thing possesses that form as a property intrinsically in the manner described above. And the second is that according to him, if a thing possesses a form as a property, then if that thing is numerically distinct form that form (i.e., if it is a sensible, changing thing, or if it is a form other than the first one), then that thing possesses that form as a property extrinsically by bearing the relation of participation to it. As I said above, as far as I am able to determine, Plato regards the relation of participation as one that only ever obtains between numerically distinct entities. At the same time, however, on my interpretation, that relation is nevertheless one of resemblance in the sense that if one thing bears that relation to a second thing, then those two things will resemble each other in a certain respect. For example, on my interpretation, if a sensible, changing thing participates in the form of Beauty, then that thing and that form will resemble each other in the respect that they are both beautiful. Now there are some occasions on which Plato seems to suggest that if a sensible, changing thing participates in (for example) the form of Beauty, then that thing will be beautiful to the very same extent as that form. But there are other occasions on which he seems to suggest instead that even if a sensible, changing thing participates in the form of Beauty, the beauty of that form will still surpass the beauty of that thing. Thus, it should be noted that my interpretation is neutral on this issue. In any case, in the end, on my interpretation, it turns out that Plato's theory of forms is similar to the view known as Aristocratic Resemblance Nominalism. On this theory, if an object is beautiful, it is beautiful in virtue of its resembling a small subset of

the set of all beautiful things, i.e., the resemblance-paradigms. (This view is to be contrasted with the one known as Egalitarian Resemblance Nominalism, according to which, if an object is beautiful, it is beautiful by virtue of its resembling all of the elements of the set of beautiful things.)[72] At the same time, however, it should also be noted that on my interpretation, Plato's theory of forms is not equivalent to Aristocratic Resemblance Nominalism. For whereas according to that version of Nominalism, resemblance-paradigms are not to be identified as properties, according to Plato's theory, resemblance-paradigms are to be identified as properties, given that they are to be identified with forms.

At this point, prior to proceeding, it is important to note what my interpretation of Plato's theory does and does not imply. On the one hand, that interpretation implies that according to Plato, given any x, if x is identical to a form, then x possesses that form as a property. But, on the other hand, that interpretation does not imply that according to Plato, given any x, if x possesses a form as a property, then x is identical to that form. Again, there are two types of counter-example to this last claim. In the first, a sensible, changing thing possesses a form as a property by bearing the relation of participation to that form. And in the second, one form possesses a second form as a property also by bearing that relation to that form. Thus, even though on my interpretation, Plato regards all forms as possessing themselves as properties, he still believes that it is possible for one thing to possess a second thing as a property. And for this reason, his theory of forms cannot be taken as equivalent to my account of property possession as identity.

[72] For more on these views, see Rodriguez-Pereyra (2002).

In the remainder of this section, I will show how my interpretation of Plato's theory of forms provides solutions to both the problem of the self-predication of the forms and the problem of the third man regress.

Plato on the self-predication of the forms. In this section, I will show how my interpretation of Plato's theory of forms provides a novel interpretation of his view on the self-predication of the forms.

Some of the most widely discussed in all of Plato's writings are the ones in which he seems to commit himself to the truth of a claim in which a form is predicated of itself. For example, we have already considered the passage *Protagoras* in which Plato seems to endorse the claim that the form of Piety is pious. Other examples include the passage at *Protagoras* 330c, where Plato seems to claim that the form of the Just is just, and the passage at *Hippias Major* 292e, where he seems to claim that the form of Beauty is beautiful. Now, over time, a variety of interpretations have sprung up to analyze or otherwise explain Plato's view on the self-predication of the forms. But as far as I am able to determine, the vast majority of these are actually versions of two very general interpretations, which I refer to as the Genuine Predication and Identity interpretations – GPI and II, respectively.

To discuss these interpretations, let us consider the following schematic statement:

(1) The form of the F is F.

According to GPI, (1) is to be taken at face value. That is to say, according to GPI, what (1) asserts is that the form of the F genuinely can be truly predicated of itself. In other

words, according to GPI, the 'is' in (1) is to be construed as the 'is' of predication, not in some other way, such as the 'is' of identity. So, for example, according to GPI, what the claim 'The form of Piety is pious' asserts is that the form of Piety genuinely is pious (i.e., it is an element of the set of all pious things); what the claim 'The form of Beauty is beautiful' asserts is that the form of Beauty genuinely is beautiful; and so on and so forth. Now it should be noted prior to proceeding that GPI actually comes in two different versions. According to the first, what (1) asserts is that the form of the F is F to the very same extent as the sensible, changing things that participate in that form. So, for example, according to this version of GPI, what the claim 'The form of Beauty is beautiful' asserts is that the form of Beauty is as beautiful as the sensible, changing things that participate in that form. And according to the second, what (1) asserts is that the form of the F is F to an even greater extent than any of the sensible, changing things that participate in that form. So, for example, according to this version of GPI, what the claim 'The form of Beauty is beautiful' asserts is that the form of Beauty is even more beautiful than any of the sensible, changing things that participate in it. Still, nothing in my argument turns on the issue of which version of GPI is correct. So for that reason, I will simply set it to the side at this point. All of the points I make below about GPI will apply equally to both versions of that view.

Prior to proceeding, it should be noted that one of the merits of GPI is that it seems to accord so well with the spirit of Plato's writings. Recall the passage from the *Protagoras* examined above. It seems very clear that in this passage Plato commits himself to the truth of the claim that the form of Piety can be truly predicated of itself. That is to say, it seems clear that in this passage he commits himself to the truth of the

claim that the form of the Pious is pious. On the other one hand, one of the problems that GPI is thought to have is that it is widely believed that if one adopts this interpretation, then Plato's theory of the forms will fall prey to the third man regress. To see this point, let us assume that a, b and c are sensible, changing things that participate in the form of the Large, which I will refer to as L1.[73] If a, b and c participate in L1, then according to GPI, L1 itself must be large. But at this point, one might think that for a, b, c and L1 all to be large, they must participate in some distinct form of the Large, which I will refer to as L2. Now if a, b, c and L1 participate in L2, then L2 itself must be large. So at this point one might think that for a, b, c, L1 and L2 all to be large, they must participate in yet another form of the Large, which I will refer to as L3. Since this process can be repeated over and over again *ad infinitum*, some have thought that it is precisely for this reason that if one adopts GPI, Plato's theory falls prey to the third man.

On the basis of this consideration, some have rejected GPI, and have adopted instead what I call to the Identity Interpretation of Plato's view on the self-predication of the forms. As I said above, for the sake of brevity I will refer to this interpretation as II. Consider the familiar schematic statement once again:

(1) The form of the F is F.

According to II, (1) is not to be taken at face value; for according to II, what (1) asserts is not that the form of the F can be truly predicated of or ascribed to itself. Rather, according to II, what (1) assert is simply that the form of the F is identical to the form of the F. In other words, according to II, the 'is' in (1) is to be construed not as the 'is' of predication, but rather as the 'is' of identity. So, for example, according to II, what the sentence 'The form of Piety' asserts, despite initial appearance to the contrary

[73] This is the way in which the regress is formulated in the *Parmenides*.

notwithstanding, is not that the form of Piety is pious, but rather that the form of Piety simply is the form of Piety.

At this point, it is important to note that II easily avoids the problem from which GPI allegedly suffers. To see this, consider the statement 'The Large is large' once again. According to II, this sentence does not assert that the form of the Large can be truly predicated of or ascribed to itself. Instead, according to II, what the sentence asserts is simply that the form of the Large is self-identical. Now it should be clear that to account for the truth of the statement that the form of the Large is self-identical, nothing in addition to the form of the Large is required. In any case, certainly no additional form of the Large is needed to account for the truth of that statement. But for this reason, since no entity is needed to account for the truth of the statement that the form of the Large is self-identical other than the form of the Large itself, the third man regress simply fails to obtain. On the other hand, it should also be noted that II also suffers from a problem, which is that it does not accord well with the spirit of Plato's writings. After all, Plato seems to regard the sentence 'The form of Piety is pious' as asserting precisely what it seems to assert. Indeed, it is important to note that if one adopts II, then all sentences of the form of (1) will turn out to be trivially true, given that what (1) will assert is that the form of the F is the form of the F. I will return to this point below.

In the meantime, let us take stock. Thus far, we have examined the two main interpretations on Plato's view of the self-predication of the forms, the Genuine Predication Interpretation (GPI) and the Identity Interpretation (II). We have also seen that each view has its own virtue. But we have seen that each view also suffers from its own problem. Thus, at this point, what we should desire is an interpretation that has all

of the virtues of GPI and II but suffers from none of the problems that beset those interpretations. In the following section, I will examine Meinwald's recent interpretation, which I will argue does not satisfy that desire. And then, in section four, I will offer my own interpretation, which I will argue does satisfy it.

Meinwald's interpretation of Plato's view. In the previous section, I examined the Genuine Predication and Identity interpretations of Plato's view on the self-predication of the forms. In this section, I examine Meinwald's recent interpretation of that view, which I argue is inadequate.

According to Meinwald's interpretation of Plato's view on the self-predication of the forms, he draws a distinction between two different types of predication.[74] On the one hand, according to her, there is what she calls predication *pros ta alla*, or predication in relation to others. Elsewhere, she refers to this as "everyday" or "ordinary" predication (1992, p. 380). According to her, a predication *pros ta alla* "concerns its subject's display of some feature, which Plato takes to be conformable in general to something other – *namely* the nature associated with that feature" (1992, p. 378). So, for example, according to her, the sentence "Aristides is virtuous" is an instance of predication *pros ta alla*, since what it asserts is that Aristides participates in a numerically distinct form, i.e., the form of Virtue.[75] On the other hand, according to her, there is also what she calls predication *pros heauto*, or predication in relation to oneself. Elsewhere,

[74] All references to her writings are to her (1991) and (1992).

[75] For her discussion of this example, see her (1991, pp. 70-71).

she refers to this as "genus-species" or "tree" predication.[76] According to her, a predication *pros heauto* "holds in virtue of a relation internal to the subject's own nature, and can so be employed to reveal the structure of that nature" (1992, p. 378). Consider the sentence "The Just is virtuous," for example. According to Meinwald, this sentence is ambiguous, since it can be taken as an instance of either *pros ta alla* or *pros heauto* predication. On the one hand, according to her, if it is taken as an instance of predication *pros ta alla*, then what it asserts is that the form of the Just participates in the form of Virtue, just as the sentence "Aristides is virtuous" asserts that Aristides participates in that form. But, on the other hand, according to her, if the sentence "The Just is virtuous" is taken as an instance of predication *pros heauto*, then it makes what we might call a conditional predication, not about the forms of the Just and Virtue themselves, but rather about the things that participate in those forms. For according to her, if the sentence "The Just is virtuous" is taken as an instance of predication *pros heauto*, then what it asserts is that for something to participate in the form of the Just, it must participate in the form of Virtue.[77] Of course, if this is all that the sentence asserts, then one may be forgiven for thinking that it is something of a misnomer to say that the form of Virtue really is genuinely *predicated* of the form of the Just in that sentence. This is a point to which I will return below.

In the meantime, there are four points of clarification regarding Meinwald's distinction between predication *pros ta alla* and predication *pros heauto* that should be noted prior to proceeding. The first is that it seems that according to Meinwald, the distinction between predication *pros ta alla* and *pros heauto* is exhaustive. In other

[76] See her (1992, p. 378 and p. 380).

[77] For her discussion of this sentence, see her (1991, pp. 70-71) and (1992, p. 379).

worlds, it seems that according to her, if a form can be truly predicated of an entity, then that predication will be an instance of either predication *pros ta alla* or predication *pros heauto*. On the other hand, it is not clear whether according to her, the distinction between predication *pros ta alla* and predication *pros heauto* is mutually exclusive. In particular, it is not clear whether according to her, there are some forms that can be truly predicated of themselves both *pros ta alla* and *pros heauto*. Thankfully, this issue does not need to be settled here, as nothing of consequence turns on its resolution. So for this reason, I will simply set it to the side at this time.

The second is that the distinction between predication *pros ta alla* and *pros heauto* does not perfectly coincide with the distinction between accidental and essential predication, respectively. On the one hand, it seems that according to Meinwald, all instances of predication *pros heauto* are instances of essential predication. But, on the other hand, according to her, not all instances of predication *pros ta alla* are instances of accidental predication. For example, according to her, whereas the sentence "Callias is pale" is an instance of accidental predication, while the sentence "Callias is human" is an instance of essential predication, both are instances of predication *pros ta alla*.[78]

The third is that according to Meinwald, given any sentence in which a form is predicated of itself, if that sentence is taken as an instance of predication *pros heauto*, then it will be trivially true – or "uninformative and safe," as she puts it.[79] Consider the sentence "The Just is just," for example. According to Meinwald, if this sentence is taken as an instance of predication *pros heauto*, then it will be trivially true; for according to her, if this sentence is taken as an instance of predication *pros heauto*, then what it asserts

[78] For her discussion of this point, see her (1991, p. 71).

[79] See her (1991, p. 69) and (1992, p. 380).

is that for something to participate in the form of the Just, it must participate in the form of the Just.

And the fourth is that according to Meinwald, there are at least some statements in which a form is predicated of itself, such that if those statements are taken as instances of predication *pros ta alla*, then those sentences will be false. For example, consider the statement 'Bravery is brave.' On the one hand, according to Meinwald, if this statement is taken as an instance of predication *pros heauto*, then that sentence will be trivially true; for as we have seen, according to her, if this statement is taken as an instance of predication *pros heauto*, then what it asserts is that for something to participate in the form of Bravery, it must participate in the form of Bravery. But, on the other hand, according to Meinwald, if this statement is taken as an instance of predication *pros ta all*a, then it will be false. She writes: "If being brave is a matter of behaving in a certain way in fearsome circumstances (or indeed is any condition on people or their behavior), then Bravery does not seem to be the kind of thing that could be brave in relation to others (i.e., that could display the feature in question)" (1992, p. 385).

At this point, there is an implication of Meinwald's interpretation of Plato's view on the self-predication of the forms that should be noted, which is important for our purposes. Consider the following schematic statement once again:

(1) The form of the F is F.

As we have seen, it seems that according to Plato, (1) is universally true, regardless of which form is substituted in place of F. Furthermore, as we have also seen, according to Meinwald, if (1) is taken as an instance of predication pros ta alla, then there will be some cases in which (1) is false (e.g., in the case of the sentence 'Bravery is brave').

Thus, to remain consistent with Plato's view, Meinwald's interpretation must imply that even if there are some cases in which (1) is taken as an instance of predication pros ta alla, there are definitely some cases in which it is to be taken instead as an instance of predication pros heauto.

Given this implication, however, it is easy to see that Meinwald's interpretation of Plato's view on the self-predication of the forms is inadequate, since it falls prey to the problem that besets II (i.e., it does not accord well with the spirit of Plato's writings). As we have seen, according to Meinwald, there are some occasions on which (1) is to be taken as an instance of predication *pros heauto*. Furthermore, as we have also seen, according to her, if (1) is taken as an instance of predication *pros heauto*, then (1) will be trivially true; for if it is taken as an instance of predication *pros heauto*, what it will assert is that for something to participate in the form of the F, it must participate in the form of the F. But we have also seen that whenever we encounter a passage in Plato's writing in which he seems to commit himself to the truth of a claim in which a form is predicated of itself, he always seems to regard that statement as being substantively true, never trivially so.

Prior to proceeding, it should also be noted that it is not altogether clear that Meinwald's interpretation of Plato's view on the self-predication of the forms avoids the problem that besets PI. That is to say, it is not altogether clear that it avoids the third man regress. Now, on the one hand, I grant that if (1) is taken in all cases as an instance of predication *pros heauto*, then Plato can "say goodbye" to the third man, as Meinwald puts it. After all, to account for the truth of the claim 'For something to participate in the form of the F, it must participate in the form of the F' no additional form of the F is required.

But, on the other hand, if (1) is ever taken as an instance of predication pros ta alla, then Plato may fall prey to the third man regress after all. After all, if (1) is ever taken as an instance of predication pros ta alla, then since what it asserts is that the form of the F is conformable in general to something other (i.e., something other than itself), this seems to suggest that some additional form of the F will be required to account of the truth of (1).

In any case, since Meinwald's interpretation of Plato's view on the self-predication of the forms suffers from the problem that besets II, it is inadequate. Consequently, another interpretation of Plato's view is required.

My interpretation of Plato's view. In this section, I offer an alternative interpretation of Plato's view on the self-predication of the forms.

Recall my interpretation of Plato's theory of forms. On my interpretation, according to Plato, given any form, the claim that this form possesses itself as a property and the claim that this form is self-identical are both true. On my interpretation, according to him, both claims have the very same truth-maker. And on my interpretation, according to him, that truth-maker is none other than that form itself.

Turning now to my interpretation of Plato's view on the self-predication of the forms, consider the following schematic statement:

(1) The form of the F is F.

On my interpretation, that statement is not ambiguous between two claims, one on which the 'is' is construed as the 'is' of predication and the other on which it is construed as the 'is' of identity. Instead, on my interpretation, (1) has *both* of the following implications:

(2) The form of the F possesses the form of the F as a property.

(3) The form of the F is identical to the form of the F.

On my interpretation of Plato's view on the self-predication of the forms, (1), (2) and (3) all have the same truth-maker. On my interpretation of that view, that truth-maker is none other than the form of the F itself. And on my interpretation of that view, since (1) is a schematic statement, similar remarks apply in general to all statements in which forms are predicated of themselves.

At this point, it should be clear that my interpretation of Plato's view on the self-predication of the forms has the virtue of the Genuine Predication View discussed in section two. That is to say, according to my interpretation of that theory, (1) implies (4):

(4) The form of the F can be truly predicated of the form of the F.

To this point clearly, recall that according to my interpretation, (1) implies (2). But as far as I am able to determine, it is universally agreed that if an entity possesses a form as a property, then that form can be truly predicated of that entity. In other words, it is universally agreed that (2) implies (4). Thus, according to my interpretation, since (1) implies (2), and sine (2) implies (4), (1) implies (4).

In the following section, I will also argue that my interpretation does not suffer from the problem that besets II. That is to say, I will argue that it allows Plato to avoid the third man regress.

Plato and the third man. In this section, I show how my interpretation of Plato's theory of forms allows him to avoid the third-man regress.

In a recent work entitled *Plato's Forms in Transition*, Samuel Rickless argues that what the third-man regress shows is that Plato is committed to the truth of five claims that are actually incompatible with each other.[80] And on the basis of this argument, Rickless concludes that Plato is forced to modify his theory of forms to avoid the contradiction. However, in this section I will offer an objection to Rickless' argument, which is based on my interpretation of Plato's view on the self-predication of the forms.

The plan of the discussion is as follows. In section 3.6.4a, I reconstruct Rickless' formulation of the third-man argument. And in section 3..4b, I offer an objection to Rickless' argument.

Rickless's argument. According to Rickless, what the third man shows is that Plato is committed to the truth of five claims that are incompatible with each other. In this section, I examine the evidence Rickless adduces for his contention that Plato is committed to the truth of these five claims. And I reconstruct Rickless' argument that those claims are incompatible with each other.

The first of the five claims that Rickless attributes to Plato is the one that he refers to as the principle of the one over many:

> **(OM)** "For any property F and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F" (p. 16).

In support of his contention that Plato is committed to the truth of (OM), Rickless writes:

> There is one well-known text that testifies to Socrates' acceptance of One-over-Many (OM). In *Republic* X (at 596a6-7), Socrates embarks on his examination of

[80] All references to Rickless's writings are to his (2007). All translations of Plato's writings are drawn form Cooper (ed.) (1997).

> imitation by asking Glaucon to adopt the "usual [or customary] procedure," that of hypothesizing "a single form in connection with each of the many things to which we apply the same name." What this statement suggests is that, for any property F and any plurality of F things, there is a (single) form corresponding to F (i.e.,, the form of F-ness). (p. 16)

To his credit, Rickless recognizes that this much by itself does not imply that the members of the plurality are F by virtue of partaking of the form of F-ness.[81] So, to remedy this problem, he cites the following passage from the *Republic*:

> Socrates: Now, the god, either because he didn't want to or because it was necessary for him not to do so, didn't make more than one bed in nature, but only one, the very one that is the being of a bed. Two or more of these have not been made by the gods and never will be.
> Glaucon: Why is that?
> Socrates: Because, if he made only two, then again one would come to light whose form they in turn would both possess, and that would be the one that is the being of a bed and not the other two.
> Glaucon: That's right.
> Socrates: The god knew this, I think, and wishing to be the real maker of the truly real bed and not just a maker of a bed, he made it to be the one in nature (597c1-d3).

But at this point, one might object that that these passages imply only that according to Plato, if a group of things are beds, and if the form The Bed is *not* a member of that group, then the members of that group are beds by virtue of their bearing some relation or other (e.g., participation) to something that it not itself a member of that group (i.e., the form The Bed). That is to say, one might object that they do not imply that according to Plato, if a group of things are beds, and if the form The Bed *is* a member of that group, then the members of that group are beds by virtue of their bearing some relation or other (e.g., participation) to something that is a member of that group (i.e., yet another form of the bed). This is an important point, and I will return to this objection below.

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[81] See his (Ibid, p. 16).

The second claim that Rickless attributes to Plato is the one that he refers to as the principle of self-predication:

(SP) "For any property F, the F is F" (p. 32).

According to Rickless, Plato's commitment to the truth of (SP) is a direct logical consequence of his commitment to the truth of the principle of causality (C) and the transmission theory of causation (TT):

(C) "For any property F, all F things (other than the F) are F by virtue of partaking of the F" (p. 29).

(TT) "[W]hatever makes something be (or become) F must itself be F" (p. 22).

Now I have argued above that Plato is not committed to the truth of (TT). But, as I will explain in section 3.6g, there are still very good reasons for thinking that he is indeed committed to the truth of (SP).

The third claim that Rickless attributes to Plato is the one that he refers to as the principle of oneness:

(O) "Every form is one" (p. 37).

In support of his contention that Plato is committed to the truth of (O), Reckless cites the following passage from the *Republic* (475e9-476a6):

> Socrates: Since the beautiful is the opposite of the ugly, they are two.
> Glaucon: Of course.
> Socrates: And since they are two, each is one.
> Glaucon: I grant that also.
> Socrates: And the same account is true of the just and the unjust, the good and the bad, and all of the forms. Each of them is itself one.

Now I grant that there is a superficial sense in which Plato is indeed committed to the truth of (O). But, as I will argue in section 3.6g, according to Plato, forms can be in two very different ways. On the one hand, I grant that according to Plato, if a form other than

the form of the One (or a sensible, changing thing) is one, then it is one by virtue of participating in the form of the One. But, on the other hand, I claim that according to him, the form of the One is one not by virtue of its bearing some relation or other (e.g., participation) to something other than itself (e.g., some other form of the one), but rather by bearing a certain relation to itself.

The fourth claim that Rickless attributes to Plato is the one that he refers to as the principle of radical purity:

(RP) "No form can have contrary properties" (p. 49).

For the sake of the argument, I will simply grant that Plato is committed to the truth of (SP).[82]

The fifth and final claim that Rickless attributes to Plato is the one that he refers to as the principle of non-self-partaking:

(NSP) "No form partakes of itself" (p. 41).

According to Rickless, Plato's commitment to the truth of (NSP) is a logical consequence of his commitment to the principles of itself-by-itself and separation:

(II) "Every form is itself by itself" (p. 16).

(S) "Every form is separate from the things that partake of it" (p. 41).

He writes:

> II can be used to derive two more theorems. Recall... that II entails that every form is itself by itself, in the sense of being separate from the things that partake of it (S). Now X's being separate from Y entails at the very least that X and Y are not identical, for is absurd to suppose that something could be separate from itself. It follows that no form is identical to any of the things that partake of it, and hence that no form partakes of itself (NSP) (p. 41).

[82] For Rickless's defense of the claim that Plato is committed to the truth of (RP), see his (Ibid. pp. 46-52).

Now, while I grant that Plato believes that all forms are separate from all sensible, changing things that participate in them, since I think that there is good reason to deny that he believes that all forms are separate from absolutely all things that participate in them, I think that there are good reasons for thinking that he is committed to the truth of (S).[83] But, as I will explain in section 3.6g, there are still good reasons for believing that Plato is indeed committed to the truth of (NSP). For, as I will explain, there are reasons for thinking that according to Plato, participation is a relation that can only ever obtain between entities that are numerically distinct from each other.

According to Rickless, the five claims that he attributes to Plato cannot all be true at the same time. For the purposes of his argument, Rickless assumes the existence of three sensible, changing objects – a, b and c – that are large. Then the argument, which has the form of a reductio, is as follows.[84]

(P1) (OM), (SP), (O), (RP) and (NSP) are all true.

(P2) If (OM) is true, and if a, b and c are large, they are large by virtue of their partaking of a form of the large (which Rickless refers to as L1).

(P3) If (SP) is true, and if a, b, and c are large by virtue of their partaking of L1, then L1 itself is large.

(P4) If (OM) and (NSP) are true, and if a, b, c and L1 are large, then they are large by virtue of their partaking of L2 (where L2 is a form of the large that is numerically distinct from L1).

(P5) By repeated applications of (OM), (SP) and (NSP), it follows that L1

[83] There seems to be no textual support in Plato's writings to justify the claim that according to him, if one form participates in another, then those two forms are separate from each other in the way in which a form is separate from the sensible, changing things that participate in it.

[84] For his statement of the argument, see his (Ibid., pp. 64-75).

will partake of an infinite number of forms of largeness.

(P6) If L1 partakes of an infinite number of such forms, then L1 is many.[85]

(P7) But if (O) is true, then L1 is one.

(P8) And by (RP), L1 cannot be both many and one.

(C) Thus, (OM), (SP), (O), (RP) and (NSP) are not all true.

Hence, according to Rickless, those five claims are incompatible with each other.

At this point, Rickless's formulation of the third man argument can be easily reconstructed as follows:

(P1*) Plato is committed to the truth of (OM), (SP), (O), (RP) and (NSP).

(P2*) But (OM), (SP), (O), (RP) and (NSP) are incompatible with each other.

(C*) Thus, Plato is committed to the truth of five claims that cannot all be true at the same time.

What is to be said of this argument? On the one hand, it is obviously valid. Furthermore, I will grant that (P2*) is true. But, on the other hand, even though the argument is valid, it is not sound. For even though I grant that (P2*) is true, as I will argue in section four, (P1*) is false.

How Plato avoids the third-man. Recall my interpretation of Plato's theory of forms. On my interpretation, according to Plato, given any form, the claim that this form possesses itself as a property and the claim that this form is self-identical are both true. On my interpretation, according to him, both claims have the very same truth-maker.

[85] For Rickless' justification of this claim, see his (Ibid., pp. 69-72). For the purpose of the paper, I will simply assume that (P6) is true.

And on my interpretation, according to him, that truth-maker is none other than that form itself.

Given that Plato regards all forms as possessing themselves as properties, it should be easy to see at this point how Plato avoids the third man regress. On the one hand, I grant that according to him, if a group of things are large, and if the form of the Large is not a member of that group, then all of the members of that group are large by virtue of their participating in something that is not a member of that group, i.e., the form of the Large. But, on the other hand, I deny that according to him, if a group of things are large, and if the form of the large is a member of that group, then all of the members of that group are large by virtue of their participating in something that is not a member of that group. To be sure, I grant that according to him, each of the members of that group other than the form of the Large is large by virtue of its participating in the form of the Large. But I also claim that according to him, the form of the Large itself is large not by virtue of its participating in something else, but rather by virtue of its possessing itself as a property. Thus, in such a way Plato manages to avoid the third-man regress.

It should also be clear at this point how the claim that Plato regards all forms as possessing themselves as properties provides for an alternative objection to Rickless's formulation of the third man argument. Recall that according to (P1*) of that argument, Plato is committed to the truth of (OM). And recall that according to (OM), for any property F and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F. Now, on the one hand, I grant that according to Plato, for any property F and any plurality of F things that does not include the form of F-ness, there is a form of F-ness by virtue of partaking of which the members of that

plurality are F. But, on the other hand, I deny that according to him, for any property F and any plurality of F things that includes the form of F-ness, there is a form of F-ness by virtue of partaking of which the members of that plurality are F. Of course, I grant that according to him, every member of that plurality other than the form of F-ness is F by virtue of participating in F-ness. But I deny that according to him, the form of F-ness is F by virtue of participating in itself or something else. Instead, I claim that according to him, the form of F-ness is F by virtue of possessing itself as a property. Thus, Plato is not committed in the end to (OM). Hence, Rickless's formulation of the third man argument is unsound.

At this point one might wonder why I do not simply claim that according to Plato, the form of F-ness is F by virtue of participating in itself. The answer is simple. As I understand him, Plato regards the relation of participation as being one that can only ever obtain between two numerically distinct entities (i.e., between sensible, changing objects and forms, or between numerically distinct forms). But on that understanding, the claim that a form bears the relation of participation to itself turns out to be incoherent

The evaluation of Plato's view. On the one hand, I reject Plato's view on property possession for sensible things as false. For one thing, it falls prey to the same problem that besets other versions of Externalism: If that view is true, then no entity possesses any property essentially. Secondly, I do not think that the Divine Mind must get involved if a sensible thing is to posses a property. I also reject his view on what it is for a form to possess a property other than itself; for it too implies that it is possible for one entity to possess a second entity as a property. But, on the other hand, I take his view on what it is

for a form to possess itself as an historical precedent for my account of property possession. At the same time, however, it should be noted that his view on this matter is not equivalent to my account. For whereas my account requires that no entity possess more than one property, his view leaves open the possibility for a form to possess more than one property.

Against Externalism in general. In the preceding sections, I have argued against a wide variety of different versions of Externalism. At this point, it should be clear that Externalism in general is false, since it implies that no entity possesses any property essentially. If that view is true, then since no entity will possess any property intrinsically, there will be nothing that entity is like in and of itself, in which case, since it will be entirely arbitrary which external entities are the ones to which it relates, that entity will not possess any properties essentially, according to the view on property possession given by that view. Finally, it should be noted that if property possession and identity are one and the same relation, this by itself suffices to show that Externalism fails to provide a necessarily true necessary condition for property possession. So even if one rejects the arguments against Externalism of this section, there is still an argument against that view yet to come.

Against hybrid views. In this section, I examine two views on property possession that I regard as hybrids of Externalism and Internalism. The first (i.e., the view of Armstrong) attempts to give both an Externalist and an Internalist analysis of property possession for one and the same class of entities. The second (i.e., the view of Zalta) attempts to give an

Externalist analysis of property possession for one class of entities and an Internalist analysis for another (where those two classes are disjoint). Against the former, I argue that it is incoherent, since Externalism and Internalism are mutually exclusive of each other. And against the latter, I argue that it falls prey to all of the problems that beset Externalism and Internalism in general.

Against the view of Armstrong. While David Armstrong is perhaps best known for his work on the problem of universals, or the problem of what it is for two entities to share the same property, no recent philosopher has also done more than him to advance our understanding concerning what I call the problem of property possession, which is the problem of what it is for a single entity to possess a single property in the first place. However, in this section, I argue that there is a problem with his view on property possession; for as I argue, whereas he is committed to the truth of (A) through (C),

(A) Every thick particular is identical to some thin particular.

(B) If a thin particular possesses a property, then that property is external to that particular.

(C) If a thick particular possesses a property, then that property is internal to that particular.

those claims cannot all be true at the same time, given that there is at least one thick particular that possesses at least one property.

The plan of the discussion is as follows. In section 4.1a, I argue that Armstrong is committed to the truth of (A) through (C). In section 4.1b, I argue that those three claims cannot all be true at the same time, given the existence of a thick particular that possesses

a property. And in section 4.1c, I examine Armstrong's recent innovation concerning what I call the modal status of instantiation. There I now only argue that this innovation fails to invalidate the result of the previous section. I also argue that the innovation is ill at ease with his long-term commitment to the truth of Realism about universals.

Armstrong's view. Armstrong draws a distinction between what he calls thick and thin particulars. What is a thick particular? To answer this question, we must first discuss two technical notions that he introduces. The *first* is the notion of a state of affairs. What is a state of affairs? In answer to this question, he writes:

> A state of affairs exists if and only if a particular (at a later point to be dubbed a thin particular) has a property or, instead, a relation holds between two or more particulars. Each state of affairs, and each constituent of each state of affairs, meaning by their constituents the particulars, properties, relations and, in the case of higher-order states of affairs, lower-order states of affairs, is a contingent existent. The properties and relations are universals, not particulars. The relations are all external relations (1997, p. 1).

Note that this passage not only suggests that according to Armstrong, the state of affairs of a thin particular's possessing a property has both that particular and that property as *constituents*; it also suggests that according to him, the thin particular that is a constituent of the state of affairs of that particular's possessing a property does not itself have that property as a constituent. This point receives further confirmation from the following passage, where he writes: "Consider the two states of affairs of *a*'s being F and *b*'s being F, where F is a non-relational universal and *a* and *b* are wholly distinct particulars (they have no sort of overlap)" (1997, p. 126). For if F were a constituent of both *a* and *b*, then presumably *a* and *b* would overlap each other after all.

The *second* technical notion is the notion of the nature of a particular. According to Armstrong, the nature of a particular is the conjunction of all of the properties possessed by that particular.[86] It is important for our purposes to note that according to Armstrong, the nature of a particular is itself a property that the particular possesses. To be sure, there may be a logical problem in the claim that the nature of a particular is the conjunction of all of the properties possessed by that particular, when that nature itself is assume to be one of those properties; for this seems to suggest that the conjunctive nature as a whole can be one of its own conjuncts. But since nothing in my argument turns on whether this potential problem is a genuine one, I will simply set this issue to the side at this time.

We are now in a position to return to the question: What is a thick particular? According to Armstrong, a thick particular is the state of affairs of a thin particular's possessing the nature of that particular. He writes: "The properties of a particular therefore form a single property – the "nature" of that particular. Hence a particular in the thick sense is a particular in the "thin" sense possessing a property. Hence it is a state of affairs" (1978a, p. 114). And as he puts it elsewhere: "So let us conjoin all the non-relational properties of a certain particular, *a*, or perhaps, in order to allow for temporal parts, *a* at a certain instant. Call the resultant property N (for nature). The thick particular *a* is now seen to be identical with the state of affairs of *a*'s being N" (1997, p. 125).[87]

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[86] See his (1978a, p. 114). To be sure, there are some occasions on which Armstrong suggests that the nature of a particular contains only the non-relational properties possessed by that particular. But ultimately for Armstrong, this distinction is one without a difference, since he rejects the existence of relational properties. See his (1978a, pp. 78-80).

[87] To be sure, there may be a problem with the claim that the nature of a particular is the conjunction of all properties possessed by that particular, when that nature is itself one of those properties. For this seems to

What is a thin particular? According to Armstrong, a thin particular is a particular considered in abstraction from its properties. He writes: "But with respect to a particular…we can distinguish between (but not separate) that in virtue of which it is a particular – its particularity – and its non-relational aspects – its properties. This yields us the "thin" conception of a particular. It is a thing taken in abstraction from all its properties" (1978a, p. 114). Unfortunately, however, as this passage settles one question, it raises two others. First of all, if a thin particular is a *particular* considered in abstraction from its properties, then what sort of particular is the one from whose properties the thin particular is considered in abstraction? Not surprisingly, according to Armstrong, it is a thick particular. In other words, according to him, a thin particular is a thick particular considered in abstraction from its properties.[88]

Second, what is it for a particular to be considered in abstraction from its properties in the first place? In answer to this question, Armstrong writes:

> When we have talked about particulars up to this point, the tacit assumption has usually, though not always, been that we are talking about the particular in abstraction from its properties. By 'abstraction' here all that is meant is that by a mental act of 'partial consideration' (Locke) we consider the particular only in so far as it is a particular, we consider it only in its particularity (1997, p. 123).

Given this last point, however, it should not be too difficult to see that Armstrong is committed to the truth of the following claim:

(A) Every thick particular is identical to a thin particular.

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amount to the claim that while the nature of a particular is a conjunction, it is also one of the conjuncts of that conjunction. Still, since nothing in this section turns on the resolution of this issue, I will simply set it aside at this time.

[88] See his (1978a, p. 114).

First of all, as we have seen, Armstrong regards a thin particular as a thick particular considered in abstraction from all of its properties. *Second*, as we have also seen, he regards the process of abstracting away the properties of a thick particular (i.e., the process that results in the thin particular) as a mental one. This seems to suggest that according to him, given any thick particular and the thin one that results from mental process of abstracting away all of its properties, the distinction to be drawn between the former particular and the latter one is not a real distinction, but rather a merely conceptual one. In other words, it seems to suggest that according to him, the thick and thin particular are really just two different ways of mentally considering what is in reality one and the same thing. *Third*, it seems plausible to assume that according to Armstrong, every thick particular can be considered in abstraction from its properties. That is to say, it seems plausible that according to him, every thick particular can be considered as a thin one. Now if Armstrong believes that every thick particular can be considered as a thin one, and if he also believes that the distinction to be drawn between that thick and thin particular is a merely conceptual distinction, as opposed to a real one, this implies that according to him, given any thick particular, that particular is identical to the thin one that results when we mentally abstract away all of its properties. This, in turn, implies that according to him, every thick particular is identical to a thin particular. And this, of course, implies that according to him, (A) is true.

Perhaps the following analogy will help one to see this point more clearly, if one does not do so already. Just as we can consider a thick particular in abstraction from its properties, we can consider the planet Venus in abstraction from the property of being the brightest heavenly body visible in the sky just before dawn. In other words, just as we

can consider a thick particular as a thin one, we can consider the planet Venus as the Evening Star. But just as it does not follow that since we can consider Venus as the Evening Star, Venus is numerically distinct from the Morning Star, it does not follow that since we can consider a thick particular as a thin one, those particulars are numerically distinct from each other. Instead, just as Venus is numerically identical to the Morning Star, so too will the thick particular be identical to the thin one.

Of course, at this point one might object that the analogy is imperfect, since neither the Morning Star nor the Evening Star is a thin particular. But this objection is inadequate; for this difference between the two cases is irrelevant. After all, what the analogy ultimately shows is that, given *any* particular that results at *any* stage in the purely mental process of abstracting away the properties of a thick particular, the resultant particular is identical to the one with which we began. Again, they are just two different ways of mentally considering what is in reality one and the same thing. So even if we consider Venus in abstraction not only from the property of being the Morning Star, but also from the property of being the Evening Star, and indeed from all of its properties, that planet will still be identical to the thin particular that eventually emerges at the end of that purely mental process of abstraction.

Finally, it should be noted that Armstrong faces a whole host of problems if it is still insisted that he is not committed to the truth of (A). The first is that if a thick particular is numerically distinct from the thin one that results from the mental process of abstracting away its properties, then since those particulars will still share the same nature, it is difficult to see what could possibly individuate those particulars from each other. Of course, at this point one might object that since a thin particular is a thick

particular considered in abstraction from its properties, that thin particular cannot be said to possess those properties. But this objection is inadequate, since we have seen that according to Armstrong, to consider a particular in abstraction from its properties is not to separate that particular from them. The second is that, if the thick particular is distinct from the thin one, then given that the thick and thin particular still possess the same nature, since that nature will bestow a causal power on the one particular just in case it bestows it upon the other, if the one particular is ever causally responsible for the occurrence of any event at all, the occurrence of that event will be causally over-determined by the other particular. The third is that if one ever becomes perceptually acquainted with either particular, Armstrong will owe us an explanation of why we are not acquainted with the other one, since presumably we will not be acquainted with them both. And the fourth is that it really does seem implausible to claim that, given any particular, there will be a second particular that 1) possesses the very same nature as the first, and 2) occupies the same spatial and temporal location as the first. (For example, it seems implausible to claim that there are two human beings sitting right where I am sitting right now.) But this is precisely what is implied if thick and think particulars are numerically distinct from each other.

Turning now to Armstrong's view on property possession, what is it for a thick particular to possess a property? We have already seen that according to Armstrong, all thick particulars are states of affairs. And we have also seen that according to him, the state of affairs of a thin particular's possessing a property has that property as a constituent. Thus, it seems that according to Armstrong, for a thick particular to possess a property is for that property to be a constituent of that particular. Indeed, he seems to

confirm as much when he writes that thick particulars "enfold" their properties within themselves (1989, p. 95).

At this point, it should be easy to see that Armstrong is committed to the truth of the following claim:

(B) If a thick particular possesses a property, then that property will be internal to that particular.

After all, we have already seen that according to him, if a thick particular possesses a property, then that property is a constituent of that particular. But it seems to follow that if a property is a constituent of a particular, then that property will be internal to that particular in accordance with the definition of Internalism provided above.[89] Thus, Armstrong is committed to the truth of (B).

Of course, at this point one might object that my interpretation of Armstrong's view conflicts with a claim he frequently makes about states of affairs, which is that they have a non-mereological form of composition. But this objection is inadequate, since his argument that states of affairs such a form of composition is unpersuasive. He argues that states of affairs have a non-mereological form of composition because it is possible for there to be two numerically distinct states of affairs that nevertheless share all of the same constituents, e.g., the state of affairs of *a*'s loving *b* and the state of affairs of *b*'s loving *a* (1997, p. 120). But this argument presupposes that the principle of mereological extensionalism is true. According to this principle, if x and y have proper parts in the first place, then they are identical to each other just in case they share all of the same such

[89] One might object that the property may yet be a non-proper part of the thick particular. But given the standard assumption made in mereology that x is a non-proper part of y just in case x and y are identical to each other, if a property is a non-proper part of a particular, that property and particular will be identical to each other.

parts. Yet a version of mereology can still be formulated even if it is assumed that this principle is false. That is to say, it can be formulated in such a way so as to allow some x and y with proper parts to be numerically distinct from each other even though they share all of the same such parts.[90] Thus, even though it seems true that states of affairs lack what we might call an extensional mereological form of composition, this does not imply that they have no mereological form of composition at all.

On the other hand, one might also object that my interpretation conflicts with another claim that Armstrong makes, which is that his analysis of property possession is a non-relational one.[91] But I have two replies to this objection. The first is that Armstrong's notion of a non-relational analysis of property possession is ambiguous. On the one hand, there are some occasions on which he seems to suggest that a particular possesses a property only if there is absolutely no relation whatsoever that obtains between them.[92] But this claim is problematic, since it seems plausible to claim that for any x and y whatsoever, there will be some relation or other that obtains between them, even if it is just identity or difference. On the other hand, there are other occasions on which he seems to claim that if a particular possesses a property, it does not do so via a relation (even if that particular bears some other relations to that property).[93] But this claim is also problematic. First of all, the mere existence of a particular and a property does not suffice to make that particular possess that property. After all, if they exist at opposite ends of the universe from each other, it does not seem that we are much inclined

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[90] See Simons (1987).

[91] See his (1978a, pp. 108-111).

[92] See his (1978a, p. 110).

[93] For an example of the former, see his (1978a, p. 110), and for one of the latter, see his (1978a, p. 108).

to say that the one possesses the other. Second, if the mere existence of a particular and a property is not sufficient to make the former possess the latter, then there must be something that somehow brings them together with each other in the right sort of way. Yet, third, it is difficult to see why we should deny that this extra item is a relation, given that it clearly functions as one. And, fourth, unless the debate over whether property possession is a relation is to degenerate into a merely terminological one, some substantive reason why this relation cannot be identified as property possession must be given. I submit that no such reason is forthcoming.

The second reply to the objection is that in his more recent writings, Armstrong seems to back away from the claim that property possession is to be given a non-relational analysis. For example, he writes:

> Suppose, for instance, that we have non-symmetrical R, particular *a* and *b*, and that there obtain two wholly independent states of affairs: *a*'s having R to *b* and *b*'s having R to *a*. The difference between the two states of affairs, it is suggested, cannot be expressed better than by stating what are the two states of affairs. The 'relation' or 'tie' between the constituents, the two different 'relations' or 'ties that in this case are associated with the two states of affairs, are not anything additional to the two states of affairs. It is often convenient to talk about instantiation, but states of affairs come first. If this is a 'fundamental tie,' required by relations as much as by properties, then so be it. But it is very different from anything that is ordinarily spoken of as a relation (1997, p. 118).

Of course, at this point one might object that in this passage, Armstrong explicitly denies that states of affairs are relations. But in fact he does not; he only insists that they are different from so-called ordinary relations. What he seems to mean by this is that instantiation is a relation that relates thin particulars to their properties, as opposed to one that relates distinct states of affairs to each other.

At this point, I turn to the question: What is it for a thin particular to possess a property? According to Armstrong, for a thin particular to possess a property is for that

particular and that property to be constituents of the state of affairs of that particular's possessing that property. He writes: "We are asking what in the world will ensure, make true, underlie, serve as the ontological ground for, the truth that *a* is F. The obvious candidate seems to be the state of affairs of *a*'s being F. In this state of affairs (fact, circumstance) *a* and F are brought together" (1997, p. 116).

At this point, it should be easy to see that Armstrong is committed to the truth of the following claim:

(C) If a thin particular possesses a property, then that property is external to that particular.

After all, we have seen that according to him, the state of affairs of a thin particular's possessing a property has both that particular and that property as constituents. And we have seen that according to him, the thin particular that is a constituent of the state of affairs of that particular's possessing a property does not itself have that property as a constituent. Thus, it seems that according to him, if a thin particular possesses a property, then that property will be external to that particular in accordance with the definition of Externalism provided above. Hence, Armstrong is committed to the truth of (C).

Finally, I take it as obvious that Armstrong is committed to the claim that there is at least one thick particular that possesses at least one property. Of course, one might object that since this claim is not, strictly speaking, a component or implication of Armstrong's theory of property possession, his theory cannot be taken as incoherent, even if (A)-(C) are incompatible with this latest claim. While I think that this objection makes a fair point, it should also be noted that if (A)-(C) are incompatible with this latest

claim, Armstrong's theory of property possession remains a problematic one, even if it is not incoherent. For if (A)-(C) are incompatible with this latest claim, then the truth of Armstrong's theory of property possession will effectively deny the existence of the phenomenon that the theory is supposed to explain, given that it will effectively rule out the existence of thick particulars that possess properties.

The argument. In the previous section, I argued that Armstrong is committed to the truth of (A)-(C):

(A) Every thick particular is identical to some thin particular.

(B) If a thick particular possesses a property, then that property is internal to that particular.

(C) If a thin particular possesses a property, then that property is external to that particular.

In this section, I argue that these three claims cannot all be true at the same time, given the existence of at least one thick particular, *a*, that possesses at least one property, F.

The argument that (A)-(C) cannot all be true, which has the form of a Reductio ad Absurdum, is as follows:

(P1) (A), (B) and (C) and true.

(P2) If (A) and (C) are true, then if a thick particular possesses a property, then that property is external to that particular.

(P3) So if a thick particular possesses a property, then that property is external to that particular.

(P4) If thick particular *a* possesses property F, and if (P3) is true, then F is

external to *a*.

(P5) So F is external to *a*.

(P6) If *a* possesses F, then if (B) is true, then F is internal to *a*.

(P7) So F is internal to *a*.

(P8) Thus, F is external and internal to *a*.

(P9) No one entity can be both external and internal to another.

(C) Hence, (A), (B) and (C) cannot all be true at the same time, given the assumption that *a* possesses F.

Now the argument is valid. Furthermore, (P2) is obviously true by the Indiscernibility of Identicals. (P4) is true by Existential Instantiation on (P3). (P6) is true by Existential Instantiation on (B). And (P9) is true by virtue of the definitions of Externalism and Internalism given above. Thus, the argument is not merely valid, but also sound.

Armstrong's recent innovation. In a series of recent works, Armstrong has made an innovation to his view concerning what we might call the modal strength of instantiation.[94] In this section, I have two aims. The first is to argue that this innovation does not invalidate the result reached in the previous section. And the second is to argue that this innovation is ill at ease with his long-standing commitment to the truth of Realism about universals; for as I argue, the conjunction of that innovation and that Realism entails that, given any two numerically distinct particulars, it is necessarily true that if the one particular exists, then so does the second one. On other words, I argue that

[94] See his (2004a) and (2004b).

it entails that a necessary connection obtains between any two numerically distinct particulars.[95]

Armstrong's recent innovation can be stated very concisely. On the one hand, he used to think that for at least some particulars, it is necessarily true that if those particulars exist, then at least some of the universals that those particulars instantiate also exist. But, on the other hand, now he not only thinks that, given any particular, it is necessarily true that, given any particular, it is necessarily true that if that particular exists, then all of the universals that it instantiates also exist; he also thinks that, given any universal, it is necessarily true that if that universal exists, then all of the particulars that instantiate it exist. He writes:

> Suppose *a* to be F, with F a universal. If this state of affairs is contingent, then it might not have existed. Suppose it had not existed. The particular *a*, the particular with all its non-relational properties, what I have called in the past the 'thick particular', would not then have existed. Something quite like it could have existed instead: a particular with all of *a*'s properties except F. But that would have been only a *close counterpart* of *a*, because the intersection with F, the partial identity with F, would be lacking. *Equally, it now seems to me, the universal F would not have existed*. A universal very much like F could have existed: a universal that had the same instantiations as F except for instantiating *a*. But that would have only been a close counterpart of F, because the intersection with *a*, the partial identity with *a*, would not have existed. So, strictly, if *a* and F exist, then they must 'intersect'. They themselves can be, and I think are, contingent beings. But if *a* exists and F exists, then *a* must be F: a necessary connection between contingent beings (2004a, p. 47, emphasis his).

In a moment, I will discuss how this innovation relates to Armstrong's long-held commitment to the truth of Realism about universals. But prior to that, I want to make three points of clarification regarding the innovation itself.

The first is that it may initially seem strange to claim that for at least one particular, it is necessarily true that if that particular exists, then at least some universals

[95] For one who has reached a similar conclusion, see Mumford (2007).

instantiated by that particular also exist. But as Armstrong correctly points out, this is really just another way of saying that that this particular possesses at least some of its properties essentially. For example, if we assume that Socrates possesses the property of being human essentially, then it will be necessarily true that if Socrates exists, then so does this property.

The second is that it may sound somewhat stranger to claim that, given any particular, it is necessarily the case that if this particular exists, then all of the universals that it instantiates also exist. After all, this seems to amount to the claim that all particulars possess all of their properties essentially. But as Armstrong again points out, this claim is also not without an historical precedent.[96]

The third is that it may sound even stranger still to claim that, given any universal, it is necessarily true that if this universal exists, then all of the particulars that instantiate it exist. But as Armstrong points out, not even this claim is without an historical precedent; for as he correctly indicates, a very similar claim is adopted by those theorists who claim that tropes are non-transferable. According to the view that tropes are non-transferable, any given trope can be possessed only by the entity that actually possesses it. For example, according to the view, since the whiteness of Socrates is the whiteness of Socrates, it cannot be the whiteness of anything else (e.g., Plato). It should be noted in passage that the claim that tropes are non-transferable does not seem essential to trope theory. For example, it seems to me to be obvious that the trope theorist can insist that the very same instance of whiteness that is present in Socrates in the last moment before his death is present in his corpse in the first moment after he has died. But if that one trope is present in Socrates and his corpse, then since Socrates and his corpse are

[96] Perhaps Spinoza adopted something like this claim. Perhaps Leibnitz did as well.

numerically distinct from each other, that trope will have been transferred in the relevant manner.

Turning now to the evaluation of Armstrong's innovation, first of all it should be clear that it does not undermine the result reached in the previous section. After all, what the innovation implies is that, given any state of affairs, it is necessarily true that if the particular constituent of that state of affairs exists, then so does its universal constituent (and vice versa). For this reason, it does not imply that thin particulars and universals fail to be constituents of states of affairs in the first place. Nor does it imply that thin particulars have the universals they possess as constituents. Nor does it imply that thick particulars fail to have universals as constituents, or that all such particulars fail to possess universals. Thus, it does not imply that Armstrong fails to be committed to the truth of (A) through (C).

Second, as I said above, if we conjoin Armstrong's recent innovation concerning instantiation to his long-standing commitment to the truth of Realism about universals, then that conjunction entails that, given any two particulars, P1 and P2, it is necessarily true that if P1 exists, then P2 exists as well. To see this point clearly, let us initially assumes that there is some one universal, U, that is instantiated by all particulars. As we have seen, according to Armstrong's innovation, given any particular, it is necessarily true that if that particular exists, then all of the universals instantiated by that particular exist. So according to the innovation, it is necessarily true that if P1 exists, then U exists. Furthermore, as we have also seen, according to that innovation, given any universal, it is necessarily true that if that universal exists, then all of the particulars that instantiate that universal exist. So according to the innovation, it is necessarily true that if U exists, then

P2 exists. Now if it is necessarily true that P1 exists only if U and exists, and if it is necessarily true that U exists only if P2 exists, then it is necessarily true that if P1 exists, then P2 exists. Hence, a necessary connection obtains between P1 and P2.

It is important to note that while the preceding argument depends upon the assumption that there is some universal that all particulars instantiate, the same result can be achieved even if we only assume that for any two particulars, there is some universal they both instantiate. Even if Armstrong rejects this latter assumption, he will still be saddled with a large number of necessary connections between distinct particulars. After all, according to his innovation, since any universal instantiated by two or more particulars will necessitate the existence of those particulars, and since those particulars will necessitate the existence of that universal, those particulars will necessitate the existence of each other.

Against the view of Zalta. It is, of course, possible to construct a hybrid of Externalism and Internalism that does not fall prey to the problem that besets Armstrong's view. For example, it seems that according to Zalta, whereas for a spatial entity to possess a property is for that entity to exemplify a non-spatial universal, for a non-spatial property to possess a second property is for the first property to have the second one as a part. (He refers to the relation of parthood that obtains between properties as encoding.) Thus, his view attempts to give an Externalist analysis of property possession for one class of entities (i.e., spatial entities) and an Internalist analysis of property possession for a second class of entities (i.e., non-spatial properties), where those two classes do not overlap. In doing so, of course, his view does not succumb to the problem of

Armstrong's view. But it should be clear at this point that even so, his hybrid view simply falls prey to the problems that plague Externalism and Internalism in general.

Against hybrid views in general. In this section, we have examined two views on property possession that are hybrids of Externalism and Internalism. The first attempted to provide both Externalist and Internalist analyses of property possession for one and the same class of entities. The second attempted to provide an Externalist analysis of property possession for one class of entities and an Internalist analysis of property possession for another class of entities (where those classes are mutually exclusive of each other). Against the first, I argue that it is actually incoherent. And against the second, I argued that it falls pretty to the same problems that beset Externalism and Internalism in general. At this point, I claim that these arguments succeed in refuting hybrid views on property possession in general. If one attempts to provide an Externalist and Internalist analyses of property possession for one and the same class of entities, then since Externalism and Internalism are mutually exclusive of each other, that view will be incoherent. And if one attempts to provide an Externalist analysis of property possession for one class of entities and an Internalist analysis of property possession for another such class (where those classes are mutually exclusive of each other), then one's view will fall prey to the problems that beset Externalism and Internalism in general.

Against Baxter's view. In this section, I will examine Donald Baxter's account of property possession as partial identity. Out of the wreckage of Baxter's account, I will

salvage some lessons for anyone who wishes to claim that if x possesses y as a property, then x and y are numerically identical to each other.

Baxter's account of property possession is based on what he calls his theory of aspects.[97] There are two points concerning that theory that need to be noted up front. The first is that according to Baxter, all entities (including both particulars and universals) have aspects. For example, according to him, Hume-insofar-as-he-is-benevolent is an aspect of Hume, and Benevolence-insofar-as-Hume-has-it is an aspect of Benevolence. The second is that according to Baxter, while the distinction to be drawn between a thing and its aspects is not a merely conceptual distinction, it is not a fully-fledged real distinction, either. Instead, according to him, the distinction to be drawn between a thing and its aspects is what he calls a formal one. What are the conditions under which a formal distinction is to be drawn between x and y? According to Baxter, if a formal distinction is to be drawn between x and y, then even though x and y are numerically identical to each other, there are some predicates that apply to x but not y. So, for example, according to Baxter, even though Benevolence-insofar-as-it-is-instantiated-here is numerically identical to Benevolence-insofar-as-it-is-instantiated-there, Benevolence-insofar-as-it-is-instantiated-here is here and not there, and Benevolence-insofar-as-it-is-instantiated-there is there and not here. As Baxter freely admits, to claim that a formal distinction is to be drawn between x and y is to claim that the principle of the indiscernibility of identicals is false. Some aspects will be identical to each other even though they are discernible from one another.

Prior to proceeding, it is important to note that if Baxter's theory of aspects is true, then all of the aspects of an entity are numerically identical to each other and to that

[97] See his (2001).

entity itself (regardless of whether that entity is a particular or a universal). To see this point clearly, let us assume that x is an aspect of y. According to Baxter's theory of aspects, if x is an aspect of y, then the distinction to be drawn between x and y is a formal one. But if the distinction to be drawn between x and y is a formal one, then x and y are numerically identical to each other. Now let us assume that z is also an aspect of y. According to Baxter's theory of aspects, if z is an aspect of y, then the distinction to be drawn between z and y is a formal one. But if the distinction to be drawn between z and y is a formal one, then z and y are numerically identical to each other. Now since x is numerically identical to y, since y is numerically identical to z, and since identity is transitive, x, y and z are all identical to each other. Thus, since this argument can be generalized, all of the aspects of an entity are numerically identical to each other and to that entity itself.

We are now in a position to turn to Baxter's account of property possession. According to him, for an entity to possess a property is for that entity and that property to have an aspect in common. So, for example, according to him, if Hume possesses the property of being benevolent, then Hume has an aspect Hume-insofar-as-he-is-benevolent, Benevolence has as an aspect Benevolence-insofar-as-Hume-has-it, and those aspects are identical to each other. Furthermore, Baxter is a Realist about universals. So according to him, for two entities to possess the same property is for those entities and that property to have an aspect in common. He refers to the relation of having an aspect in common as partial identity. As we will see below, however, this turns out to be something of a misnomer.

There are two problems with Baxter's account of property possession as partial identity. The first is that if his account is true, then no property can be possessed by more than one object. To see this point clearly, let us assume that the property of being benevolent is possessed not only by Hume, but also by Kant. As we have seen, according to Baxter's view on property possession, if Hume possesses the property of being benevolent, then Hume has as an aspect Hume-insofar-as-he-is-benevolent, Benevolence has as an aspect Benevolence-insofar-as-Hume-has-it, and those aspects are numerically identical to each other. As we have also seen, according to Baxter's view on property possession, if Kant possesses the property of being benevolent, then Kant has as an aspect Kant-insofar-as-he-is-benevolent, Benevolence has as an aspect Benevolence-insofar-as-Kant-has-it, and those aspects are numerically identical to each other. Furthermore, as we have seen, according to Baxter's theory of aspects, all of a thing's aspects are numerically identical to each other and to that thing as well. So Hume is identical to Hume-insofar-as-he-is-benevolent, that aspect is in turn identical to Benevolence-insofar-as-Hume-has-it, that aspect is identical to Benevolence itself, Benevolence is identical to Benevolence-insofar-as-Kant-has-it, that aspect is identical to Kant-insofar-as-he-is-benevolent, and that aspect is identical to Kant. Now if Hume is identical to Hume-insofar-as-he-is-benevolent, that aspect is in turn identical to Benevolence-insofar-as-Hume-has-it, that aspect is identical to Benevolence, Benevolence is identical to Benevolence-insofar-as-Kant-has-it, that aspect is identical to Kant-insofar-as-he-is-benevolent, and that aspect is identical to Kant, then since identity is transitive, Hume is identical to Kant. But not only is this particular result implausible. Since the argument can be generalized to all relevant cases, it follows that if Baxter's account of property

possession is true, then if property x is possessed by objects y and z, then y and z will be identical to each other. That is to say, it follows that if Baxter's account of property possession is true, then no property can be possessed by two or more objects.

Of course, at this point, one might retort that Baxter should simply reject the claim that there are some properties that can be possessed by more than one object. But one of Baxter's primary reasons for developing his theory of aspects in the first place is to respond to a traditional objection to Realism about universals. According to this objection, Realism is false, since it is impossible for one and the same property (let us refer to it as U) to be present in two different locations (let us refer to them as here and there) at one and the same time. But according to Baxter's theory of aspects, if U-insofar-as-it-exists-here and U-insofar-as-it-exists-there are aspects of U, then even though U-insofar-as-it-exists-here and U-insofar-as-it-exists-there are numerically identical to each other, whereas U-insofar-as-it-exists-here exists here and not there, U-insofar-as-it-exists-there exists there and not here. Of course, one might think that as a response to the objection, this maneuver is inadequate. But while I am inclined to agree, the point is irrelevant. The relevant point is that Baxter cannot reject the claim that there are some properties that can be possessed by more than one object, given that the theory of aspects' reason to be is to save Realism about universals from disaster.

The second problem is that if Baxter's view on property possession is true, then no one object can possess more than one property. To see this point clearly, let us assume that Hume possesses not only the property of being benevolent, but also the property of being humble. As we have seen, according to Baxter's view on property possession, if Hume possesses the property of being benevolent, then Hume has as an

aspect Hume-insofar-as-he-is-benevolent, Benevolence has as an aspect Benevolence-insofar-as-Hume-has-it, and those aspects are numerically identical to each other. As we have also seen, according to Baxter's view on property possession, if Hume possesses the property of being humble, then Hume has as an aspect Hume-insofar-as-he-is-humble, Humility has as an aspect Humility-insofar-as-Hume-has-it, and those aspects are numerically identical to each other. And as we have seen, according to Baxter's theory of aspects, all of the aspects of a thing are numerically identical to each other and to that thing as well. So Benevolence is identical to Benevolence-insofar-as-Hume-has-it, that aspect is identical to Hume-insofar-as-he-is-benevolent, that aspect is identical to Hume, Hume is identical to Hume-insofar-as-he-is-humble, that aspect is in turn identical to Humility-insofar-as-Hume-has-it, and that aspect is identical to Humility. Now if Benevolence is identical Benevolence-insofar-as-Hume-has-it, that aspect is identical to Hume-insofar-as-he-is-benevolent, that aspect is identical to Hume, Hume is identical to Hume-insofar-as-he-is-humble, that aspect is in turn identical to Humility-insofar-as-Hume-has-it, and that aspect is identical to Humility, then since identity is transitive, Benevolence and Humility are identical to each other. But not only is this particular result implausible. Since the argument can be generalized to all relevant cases, it follow that if Baxter's account of property possession is true, then object x can possess properties y and z only if y and z are identical to each other. In that case, it follows that if Baxter's account of property possession is true, then no object can possess more than one property.

Of course, at this point, one might object that Baxter can avoid this problem by adopting something like a universal generalization of Aquinas' doctrine of divine

simplicity. According to Aquinas, despite appearances to the contrary notwithstanding, all of the attributes that can be truly predicated of God (i.e., omnipotence, omniscience, omnibenevolence, etc.) are identical to each other and to God as well. (Perhaps another way of expressing the doctrine is to say that according to it, God possesses but one property, perfection, and this property manifests itself in a variety of different ways.) Now I grant that if Baxter adopts what I will call a doctrine of entity-simplicity for any given entity (according to which any given entity is numerically identical to all of the properties that can be truly predicated of that entity), then he can avoid the problem described in the previous paragraph. But, on the other hand, even if the doctrine of divine simplicity is plausible insofar as the case of God is concerned, the universal doctrine of entity-simplicity does not even seem remotely plausible. Consider the case of the red, rubber ball again. It is simply false to say that the color that can be truly predicated of the ball is identical to the shape that can be truly predicated of that ball since that ball could have retained the same shape even if it has been painted blue instead.

Finally, at this point, one might wonder whether my account of property possession as identity suffers from these same problems. It does not. There are two lessons to be salvaged from the wreckage of Baxter's view on property possession by anyone who wants to claim that if x possesses y as a property, then x and y are numerically identical to each other. The first is to deny that any one property can be possessed by two or more entities. And the second is to deny that any one entity can possess two or more properties. As we will see in chapter four, since my view incorporates these lessons, it avoids the problems that beset Baxter's view. Of course, the worry is that by incorporating these lessons, my account necessarily gives rise to a

picture of the world that is at odds with common sense. But as I will also show in chapter four, the world of common sense can be re-built on the basis of my account.

CHAPTER III PROPERTY POSSESSION AS IDENTITY

Introduction. In this chapter, I will defend the premises of the following argument:

(P1) Property possession is a relation.

(P2) If property possession is a relation, then either it is the relation of identity, or else it is some relation other than identity.

(P3) If property possession is some relation other than identity, then there is at least one entity that possesses a second entity as a property.

(P4) But it is not possible for one entity to possess a second entity as a property.

(C) Thus, property possession and identity are one and the same relation.

The argument is obviously valid. I will begin with (P1).

Premise one: Property possession is a relation. While there is, as we have seen, widespread disagreement over the issue of exactly which relation property possession is, there seems to be widespread agreement that it is some relation or other. In fact, given that it has already been established that there are such things as properties and that there are at least some entities that possess them, one of the only serious objection remaining to the claim that property possession is a relation is the one posed by Bradley's relational regress argument.[98] According to that argument, if one claims that property possession is a relation, then since one thereby becomes committed to the existence of at least two infinite regresses, one should conclude that property possession is not a relation after all.

[98] Of course, another objection is that property possession can be construed as the identity of an entity along the lines of what was suggested in chapter one. But to identity property possession and identity at this stage would of course be question begging.

But in this section, I will argue that this argument does not secure the conclusion that it purports to prove.

Bradley's relational regress argument has the form of a *reductio ad absurdum*. As such, it begins with the assumption that property possession is a relation. For the sake of convenience, let us refer to this relation in this section as R. The argument then proceeds on the basis of the assumption that there is at least one entity, x, that bears R to at least one property, F.[99] Now according to the argument, if x bears R to F, then x must also bear some relation to R itself.[100] Let us refer to this relation as R'. (According to some formulations of the argument, R and R' are identical to each other. According to other formulations, they are not. Thankfully, this issue does not need to be decided here.) According to the argument, if x bears to R' to R, then x must bear some relation to R'. Let us refer to this relation as R''. (As in the previous case, according to some formulations of the argument, R' and R'' are numerically identical to each other, whereas according to others, they are not. And as in the previous case, this issue does not need to be decided here.) But according to the argument, since this process can be repeated over and over again *ad infinitum*, it follows that if one claims that property possession is a relation, one becomes committed to the existence of at least one infinite regress of relations.

Why do I claim that according to the argument, if one claims that property possession is a relation, one thereby becomes committed to the existence of at least two infinite regresses of relations? The answer is simple. Even though the point seems not to

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[99] One might object to this point. I will respond to this objection below.

[100] A variety of arguments for this claim have been given in the literature. For our purposes, the rationale for this claim is irrelevant.

have been universally recognized, if the argument shows anything at all, what it shows is that if x bears R to F, then just as x must bear some relation to R, so too must F; just as x must bear some relation to the relation that it bears to R, so too must F; and so on and so forth. Furthermore, if x bears R to any properties in addition to F, then just as x must bear some relation to R, so too must these other properties. So if the argument shows anything at all, what it shows is that if x is to possess F via the relation R, then there must exist at least two infinite regresses of relations.

What is to be made of the argument? One point immediately to be noted is that much the same regress will obtain any time x bears any relation to y, regardless of whether this relation is assumed to be property possession or not. For if x bears a relation to y, then regardless of which relation this is, just as x must bear some relation to this relation, so too must y, etc. Now the claim that various entities can be related to each other in various ways does not seem problematic, at least on its face. So perhaps it should come as no surprise to find that the apparent threat posed by Bradley's relational regress argument to the claim that various entities bear various relations to each other, including property possession, is not a genuine one.

There are two reasons why Bradley's relational regress argument does not constitute a genuine threat to the claim that property possession is a relation. The *first* is that the regresses it engenders do not prevent x from being related by R to F in the end. In fact, those regresses only obtain if x is successfully related by R to F in the first place. The *second* is that no contradiction is ever reached by the regresses as they wind their way to infinity. Certainly some clever attempt to jerry-rig a contradiction might be made. (For example, on the assumption that x bears R to F and R' to R, if one identifies both R

and R' as the relation of identity, then given the assumption that R is not identical to F, x both will and will not be identical to F.) But these attempts seem ad hoc. Thus, since the argument does not prevent x from being related by R to F, and since the argument does not engender a contradiction, I conclude that Bradley's relational regresses, while certainly infinite, are not vicious ones. And for that reason, I conclude that the argument does not constitute a genuine threat to the claim that property possession is a relation.

Of course, at this point some will look on in pure horror as x becomes related to R, and then to R', and then to R'', and so forth. But this just seems nothing more than a particular instance of the plausible general principle that, given any x and y, there will be some relation or other that obtains between them, even if it is just identity or difference. In fact, given the truth of this general principle, it actually should come as no surprise that Bradley's relational regresses obtain whenever an entity bears the relation of property possession to a property. Indeed, it should be expected.

On the other hand, one might also object that I have misrepresented the structure of Bradley's argument. According to this objection, it does not begin with the assumption that x successfully bears R to F. Instead, according to the objection, it begins with the more minimal assumption that x, R and F merely exist. According to this reformulated version of the argument, then, no matter how many relations x bears to R, or to R', or to R'', etc., this will never suffice to make x bear R to F. But I have two objections to this formulation of the argument. The *first* is that, just like the previous formulation of the argument, this formulation does not present even a prima facie problem for my account of property possession as identity, if property possession and identity are understood along the lines of the suggestion made in chapter one, according

to which property possession is to be construed as identity and identity is to be construed not as a relation, but rather as the identity of an entity, which in turn is construed as that entity's nature. And the *second* is that the view that property possession is not a relation is not a live option if one draws a real distinction between properties and the entities that possess them. For if x and F are assumed to be numerically distinct from each other, then since the mere existence of x and F does not suffice to make x possess F, if x is to possess F in the end, there must be something that brings them together in some manner or other. But it is difficult to see how this extra ontological item could fail to be a relation, given that it so obviously functions as one, insofar as it brings x and F together with each other. So unless the debate over whether property possession is a relation is to degenerate into a merely terminological one, some substance reason whey property possession is not a relation must be given. Thus, in the end, one can regard this reformulated version of Bradley's relational regress argument as a success only if one concedes that it provides at least some reason for accepting my account of property possession.

Premise two: If property possession is a relation, then either it is the relation of identity, or else it is some relation other than identity. This premise is trivially true.

Premise three: If property possession is some relation other than identity, then there is at least one entity that bears that relation to at least one entity other than itself. To reject this premise, one must concede either that property possession is the relation with the null extension, or that it is a relation that some but not all entities bear just to themselves.

Since both of these options seem more implausible than the one I advocate, I will assume that this premise is true.

Premise four: It is not possible for one entity to possess a second entity as a property. The argument for this premise has the form of a *reductio ad absurdum*. As such, it begins with the following premise:

(P1) There is at least one entity, x, that bears the relation of property possession to a second entity, y (i.e., an entity from which x is numerically distinct).

To make the argument somewhat more vivid than it might otherwise have been, let us assume that y is the property of being red. It does not matter for the purpose of the argument whether y is assumed to be a universal, or whether it is assumed to be a particular.[101] Also, even thought the argument proceeds in terms of this property alone, it will be clear that the argument can be generalized to all others. In addition, since the argument is somewhat lengthy, I will re-assemble it in a somewhat more concise form below. One may wish to refer to the re-assembled argument from time to time as one proceeds. Finally, if one pleases, one may proceed under the assumption that x is a qualitatively complex entity, such as a red, rubber ball. But it is going to turn out that if x possesses the property of being red, then x is what I call an instance of redness.

The second premise of the argument is as follows:

(P2) If x bears the relation of property possession to y, then 1) x is red, and 2) x is red in virtue of the obtaining of some relation between x and y.

[101] If it is a particular, perhaps one feels more comfortable referring to it as a property of being red. Nevertheless, I will continue to refer to it as the property of being red simply for the sake of convenience.

It is important to note that nothing technical is intended by the claim that x is red. If x is red, then x's being qualitative in this manner is what I referred to in chapter one as one of the data of metaphysics. Given this point, and given that y has been assumed to be the property of being red, there are only two possible objections to this premise. According to the first, it is not the case that if x bears the relation of property possession to y, then x is red. But this objection is implausible. First of all, as far as I am able to determine, it is universally accepted that if an entity possesses a property, then that property can be truly predicated of that entity. So, since it has been assumed that x bears the relation of property possession to y, and since it has been assumed that y is the property of being red, that property can be truly predicated of y. But it seems plausible to suppose that the property of being red can be truly predicated of an entity just in case that entity is red. Thus, if x bears the relation of property possession to the property of being red, then x is red.

According to the second objection, even if x bears the relation of property possession to y only if x is red, it is still not the case that if x bears the relation of property possession to y, then x is red in virtue of the obtaining of some relation between x and y. But this objection is also implausible. After all, if we assume that x bears the relation of property possession to y, and if we assume that y is the property of being red, it is difficult to see how x could fail to be red precisely in virtue of the obtaining of *that* relation between x and y. In any case, I will merely assume that if x bears the relation of property possession to y, then x is red in virtue of the obtaining of some relation or other between x and y.

At this point, we can derive the following from (P1) and (P2):

(P3) 1) x is red, and 2) x is red in virtue of the obtaining of some relation between x and y.

The next premise of the argument is this:

(P4) If x bears the relation of property possession to y, then either y is not a part of x, y is a proper part of x, or else y is a non-proper part of x to which x is not identical.

It should be noted that this premise does not assume that if y is a non-proper part of x, then x and y are identical to each other. It should also be noted that by assuming that x and y can be numerically distinct parts of each other, I am not making the task of establishing the truth of my conclusion any easier. In fact, it should be obvious that by doing so, I am actually making that task that much more difficult for me to achieve; for instead of having to consider just two possibilities (i.e., the one in which y is not a part of x and the one in which y is a proper part of x), I must now consider three.

At this point, we can derive the following from (P1) and (P4):

(P5) Either y is not a part of x, y is a proper part of x, or else y is a proper part of x to which x is not identical.

I will consider the first option first. The next premise of the argument is this:

(P6) If y is not a part of x, then either y bears the relation of formal causation to x, or else y does not bear that relation to x.

One will recall that the notion of formal causation was discussed in chapter two. As we saw there, if x bears the relation of formal causation to the property of being red, then that property contributes something to x, thereby making it red. Obviously, that notion

will now need to be discussed in greater detail than it was before. But even prior to doing so, it should already be clear that this premise is trivially true.

As we have seen, the notion of formal causation is a traditional one. After all, as we saw in chapter two, on one prominent interpretation of Plato's theory of forms, according to that theory, if a sensible, changing thing participates in a form, then since that form will bear the relation of formal causation to that thing, that form will contribute something to that thing, thereby making it resemble that form in a certain respect. For example, on this interpretation, according to that theory, if a sensible, changing thing participates in the form of Redness, then since that form will bear the relation of formal causation to that thing, that form will contribute something to that thing, thereby making it red. Of course, we saw that this is actually a misinterpretation of Plato's theory. But we also saw that a somewhat similar notion of causation is still present on that theory. For as we saw, according to that theory, if a sensible, changing thing participates in a form, then the Demiurge uses that form as a template by which to cause that thing to resemble that form in a certain respect.

Of course, at this point one might object that the notion of formal causation is a mere relic of the past, and has no place in a proper discussion of contemporary analytic metaphysics. But this objection is implausible. For example, as David Armstrong has noted, that notion (or something very similar to it) still seems to be present in at least some contemporary versions of Platonic Transcendent Realism. He writes:

> It may be said that the relations between predicates, concepts, classes and paradigms, on the one hand, and suitable particulars, on the other, are not productive relations. They do nothing to make the particulars what they are. Hence they cannot serve to give an account of what it is for particulars to have properties and relations. But the Form can be thought of as productive. When the Form comes to have the converse of participation to an object, then that object

> takes on a certain character. The half-expressed thought behind the word "productive" is that the relation is a species of causal relation (1978a, p. 68).

Thus, even though it is a mistake to attribute to Plato the view that a sensible, changing thing participates in a form only if that form bears the relation of formal causation to that thing, it is an influential mistake, one that continues to influence the views of at least some philosophers down to the present day.

On the other hand, one might also object that since the notion of formal causation is problematic, it should be a relic of the past, even if it isn't. Here I am in agreement. In fact, I will argue that the notion of formal causation is problematic below. In the meantime, however, I wish to stress that this objection is a dangerous one to make, if one rejects my account of property possession. For as I will also argue, out of all of the views on property possession other than my own, the ones that invoke the notion of formal causation (or something very much like it) actually have an advantage over the ones that do not do so. Thus, I will be using the notion of formal causation as a foil in three different ways. First, by showing that the notion of formal causation is problematic, and by showing that my account does not rely upon it, I show my account in a positive light. Second, by showing that the notion of formal causation is problematic, I show the views that rely upon it in a less than positive light. And third, by showing that out of all of the views on property possession other than my own, the ones that invoke the notion of formal causation have an advantage over the ones that do not, I show that last class of views in a very negative light indeed.

The next premise of the argument is this:

(P7) If y bears the relation of formal causation to x, then x is red in virtue of the obtaining of that relation between y and x.

Of course, one might object that even if y bears the relation of formal causation to x, x is still red in virtue of the obtaining of some other relation between x and y. But this objection is implausible; for it leaves us wondering how y's bearing the relation of formal causation is relevant to x's being red in the first place. Certainly one might suggest that y's bearing the relation of formal causation to x is some sort of necessary pre-condition for x's being red. (Perhaps this is what is being suggested by interpreters of Plato when they claim that according to him, if a sensible, changing thing is red, then it is red by virtue of the fact that since the form of Redness bears the relation of formal causation to that thing, that form contributes to that thing a form-copy of itself, which is what makes x red.) But since this just seems to amount to the suggestion that x is red ultimately in virtue of y's bearing the relation of formal causation to x after all, this does not seem to contradict (P7). On the other, hand, one might also object that even if y bears the relation of formal causation to x, x is red not in virtue of the obtaining of some relation between x and y, but rather in virtue of something else entirely. But this objection is blocked by (P3), according to which if x bears the relation of property possession to y, then x is red in virtue of the obtaining of some relation or other between x and y.

The next premise is this:

(P8) It is not the case that x is red in virtue of y's bearing the relation of formal causation to x.

There are three reasons why (P8) is true.

The first is that it is difficult to see *what* y could contribute to x to make x red. To be sure, the problem is not that we lack a good descriptive name for what y supposedly contributes. As we have seen, some claim that according to Plato's theory of forms, if

the form of Redness bears the relation of formal causation to a sensible, changing thing, then that form contributes a form-copy of itself to that thing, thereby making it red. As we also saw, others claim that according to that theory, if a sensible, changing thing participates in the form of F, then that form contributes its being F or its Fness to that thing. For the sake of the argument, let us simply refer to whatever it is that y supposedly contributes to x to make x red as *the redness of x*. Rather, the problem is one that concerns the ontological status of what we are now calling the redness of x itself. The problem comes into focus once we consider the following series of choices. Either the redness of x is a property, or else it is something other than a property. And if it is a property, then either it is numerically identical to y, or else it is something distinct from y. Those, of course, are the only possible choices. Now, on the one hand, if the redness of x is a property that is numerically distinct from y, then it is difficult to see why x would not be red in virtue of the obtaining of some relation between x and the redness of x, as opposed to the obtaining of a relation between x and y. Yet this would contradict (P3). Then again, if the redness of x is a property that is numerically identical to y, then y could be required to contribute itself to x. Yet it is not clear that we can make sense of the notion of self-contribution in this context. Certainly Plato would reject the claim that we can do so, given his strict insistence on the separation of the forms from the sensible, changing things that participate in them. Moreover, even if we can make sense of the notion of self-contribution, it is still difficult to see how one can consistently claim that y is a property that contributes itself to x, and yet still reject my account of property possession. For if one claims that y is a property that contributes itself to x, this seems to suggest the kind of complete and utter merging of x and the redness of x that is

envisioned on my account. On the other hand, if the redness of x is not a property at all, it is difficult to see how y could be at all relevant to x's being red. After all, if the redness of x is not a property, it is difficult to see why some other – indeed, any other – non-property could not adequately fulfill the role supposedly fulfilled by the redness of x. That is to say, it is difficult to see why y could not contribute any other non-property to x to make x red. Of course, one might object that no other non-property can fulfill the role of the redness of x because no other non-property *is* the redness of x. But this objection is inadequate, since it leaves us wondering what is so special about a specific non-property in virtue of which it counts as the redness of x in the first place. What is it in virtue of which it deserves the name? Is it that this non-property itself possesses a certain property? But this cannot be; for this would suggest that x is red in virtue of the obtaining of a relation between x and whatever property it is that it possessed by the redness of x. And this, in turn, would contradict (P3).

The *second* reason is that it is difficult to see *how* y could contribute the redness of x to x, thereby making x red, regardless of whatever exactly the redness of x is assumed to be. If y contributes the redness of x to x, then either this somehow involves y's transmission of the redness of x to x through some kind of medium, or else it does not do so. Now, on the one hand, the claim that y transmits the redness of x to x through some kind of medium seems implausible, if for no other reason that this is not something that we ever seem to perceive. (Frankly, I cannot even imagine what it would be like to perceive this. Some seem to speak of Plato's forms as though according to him, they emit ghostly projections onto the surfaces of sensible, changing things. Yet even if I concede that I perceive these projections, insofar as I perceive the surfaces of sensible,

changing things, I cannot say that I have ever been acquainted with the propagations of those projections through space.) But, on the other hand, the claim that y does not transmit the redness of x to x through some kind of medium also seems implausible, if we wish to maintain that y contributes the redness of x to x in the end. For if we claim that y contributes the redness of x to x, then unless we postulate the existence of some kind of medium to facilitate this contribution, and unless we conceive of this contribution as some kind of propagation or transmission through this medium, this contribution will seem very akin to action at a distance, or even something even more mysterious, given that x and y have been assumed to be numerically distinct from each other. To be sure, there is a prior issue of how y manages even to bring about the existence of an instance of redness. But even if we simply grant that the mere existence of y is somehow sufficient to being about the existence of an instance of redness, it is not clear what would prevent this instance from existing at the opposite end of the universe from x. But in that case, that instance of redness would decidedly not be the redness of x.

The *third* reason, which is by far the most important of the three, concerns the relation that obtains between x and the redness of x. Either x and the redness of x are numerically identical to each other, or else they are numerically distinct from one another. Now, on the one hand, if x is numerically identical to the redness of x, then it is difficult to see how y could be at all relevant to x's being red. For if x is numerically identical to the redness of x, then it is difficult to see why x could not still remain red even if y simply ceased to exist. (To be sure, one cannot object that y is still relevant to x's being red, even if x and the redness of x are numerically identical to each other, since y is that which contributes the redness of x to x itself; for in that case, it would follow that

y contributes x to itself, which seems absurd.) Moreover, this comes close to what my account envisions, given that it envisions the complete collapse of x, the redness of x and y into one and the same entity, as we will see below. But, on the other hand, if x and the redness of x are numerically distinct from each other, then we are back at square one. For if x is numerically distinct from the redness of x, we have to ask: How is the redness of relevant to x's being red? How does *it* make x red?

At this point, we can derive the following from (P7) and (P8):

(P9) y does not bear the relation of formal causation to x.

The next premise of the argument is this:

(P10) If y is not a part of x, and if y does not bear the relation of formal causation to x, then it is not the case that x is red in virtue of the obtaining of any relation between x and y.

There are only two possible objections to this premise. According to the *first*, even if y is not a part of x, and even if y does not bear the relation of formal causation to x, x is still red in virtue of the obtaining of some other causal relation between x and y. But this objection is implausible, since it is difficult to see exactly which causal relation this could be. *First of all*, it seems implausible to claim that x is red in virtue of y's bearing the relation of efficient causation to x, if for no other reason than that y as been assumed to be a property, as opposed to an event or an agent. Furthermore, even if we assume that some event or agent causes y to become related to x via the relation of efficient causation, if we still insist that x and y are numerically distinct from each other, there yet remains an outstanding issue, which is the issue of exactly how y makes x red. *Second*, it seems even more implausible to claim that x is red in virtue of y's bearing the relation of

material causation to x. Even if we grant for the sake of the argument that y does bear this relation to x, it is difficult to see how, by doing so, y could thereby succeed in making x a such, as opposed to a this, to use Aristotle's terminology.[102] And *third*, it seems even more implausible still to claim that x is red in virtue of y's bearing the relation of final causation to x, since the possession of a property does not in all cases seem to coincide with the having of a purpose. On the other hand, one might suggest that x is red in virtue of x's bearing some causal relation to y. But this suggestion cannot be universally maintained, since it does not seem that x can bear any causal relation to anything else unless there is already at least one property that x possesses. So unless one can identify some other causal relation that y bears to x in virtue of which x is red, and unless one can explain why this relation does not just amount to the relation of formal causation in the end, I will conclude that this objection is inadequate.

According to the *second* objection, even if y is not a part of x, and even if y does not bear the relation of formal causation to x, x is still red in virtue of the obtaining of some non-causal relation between x and y. But this objection is also implausible, since it is difficult to see exactly which non-causal relation this could be. First of all, one might claim that x is red in virtue of the obtaining of a relation between x and y that implies that x engages in some sort of activity. For example, as we have seen, some claim that for x to possess the property of being red is for x to imitate, participate in, partake of, exemplify or instantiate that property. But despite whatever differences there are between these various claims, they all share several problem in common. The *first* is that it is difficult to see how to explain why x engages in the relevant sort of activity in relation to y, as opposed to some other entity. As we saw in the previous chapter,

[102] This, of course, is Aristotle's terminology.

according to Plato, if a sensible, changing thing participates in a form, then the divine mind uses that form as a template by which to cause that thing to resemble that form in a certain respect, and does so for the sake of the good. But presumably one cannot claim that x instantiates (exemplifies, participates in, partakes of, etc.) y, as opposed to some other property, for the sake of the good without attributing to x something very much like the capacity for deliberate choice. Nor can one claim that x engages in the relevant sort of activity in relation to x, as opposed to some other property, in virtue of x's intrinsic nature without conceding that x is red prior to its engaging in the relevant sort of activity in relation to y. The *second* is that the entire notion of activity seems problematic in this context. When we become perceptually aware of an x that possesses the property of being red, we do not become aware of x's doing so via its engaging in some sort of activity. Instead, we simply become aware of x's being in a certain state.

Second, one might claim that x is red in virtue of the obtaining of a relation between x and y that implies that y engages in some sort of activity. For example, as we have seen, some claim that for x to possess the property of being red is for that property to inhere in x. But there are several problems with this claim. The first is that it is difficult to see how to explain why y engages in the relevant sort of activity in relation to x, as opposed to some other entity. As we saw in the previous chapter, according to Plato, if a sensible, changing thing participates in a form, then the Demiurge uses that form as a template by which to cause that thing to resemble that form, and does so for the sake of the good. But presumably one cannot claim that y inheres in x, as opposed to some other entity, for the sake of the good without attributing to y something very much like the capacity for deliberate choice. The second is that the notion of activity seems

problematic insofar as the present context is concerned. When we become perceptually acquainted with an x that possesses the property of being red, we do not become acquainted with x's doing so via that property's engaging in some sort of activity. Instead, we become acquainted with that property's simply being a state of x.

Third, one might claim that x is red in virtue of the obtaining of a relation between x and y that does not seem to imply that x or y engages in any activity at all. But this claim is implausible as well; for on this suggestion, it is difficult to see how y could be at all relevant to x's being red. As we have seen, according to some, for x to be red is for x and the property of being red to be constituents of a certain state of affairs or fact. Now, on the one hand, I grant that the claim that x and y are constituents of a certain state of affairs or fact does not seem to imply that x or y engages in any sort of activity. But, on the other hand, I submit that if x is red, it will not be red in virtue of its being a constituent along with y a state of affairs or fact. After all, no one would claim that if x is red, then it is red in virtue of its being a proper part of a mereological whole along with that property. For x and y could still be proper parts of a whole even if they existed at opposite ends of the universe from each other. Perhaps the idea is that unlike mereological wholes, states of affairs or facts do something to bring entities and properties together with each other. But this seems to suggest that states of affairs or facts engage in some sort of activity, and I cannot see why this notion of activity should be any less problematic than the notion of the activity that some suppose is performed by x or y themselves.

Of course, at this point one might simply insist that if x and y are constituents of a state of affairs of fact, then x is simply red, i.e., red in a way that does not require that

state of affairs to perform any sort of activity at all. But states of affairs and facts aren't magical, assuming they exist. And so I will want to know why states of affairs or facts can succeed where mereological wholes fail. I will want this explanation not to make recourse to the notion of activity. And I do not want to be told that states of affairs (or facts) succeed where mereological wholes fail simply because states of affairs are states of affairs (or fact or facts); for this does not constitute an explanation, but only re-states what is to be explained. It cannot be that states of affairs or facts have some ineffable power over the particulars and properties that come into their midst. But without invoking the notion of an ineffable power, it is difficult to see how, when a formerly non-red entity comes to be a constituent along with the property of being red in a state of affairs or fact, that formerly non-red entity can be transformed into one that is red. Of course, one might object that I am somehow being unfair when I saddle the proponent of states of affairs or facts with this notion of transformation. But I cannot see how the proponent of states of affairs or facts is not committed to the truth of precisely the claim that states of affairs or facts transform their particular constituents in this way. Of course, one might object that the notion of a state of affairs' or fact's bringing together of an entity and a property is a primitive one. But, as I will argue below, one cannot take shelter against the storm behind this objection; for it is a flimsy structure indeed. Finally, one might object that I simply misunderstand what the proponent of states of affairs or facts is up to: It is not that a state of affairs or fact somehow takes the property of being red and uses it to make the other constituent of that state of affairs or fact red. Rather, the idea is that if an entity is red, then it will be a constituent of the state of affairs or fact of that entity's being red. But this objection is implausible; for it seems to suggest that the

red entity in question is red in some sense prior to its entering into the relevant state of affairs or fact. Yet if the entity is red prior to its entering into this state of affairs or fact, it is difficult to see how this state of affairs or fact is at all pertinent to that entity's being red.

It should now be clear why I claim that out of all of the views on property possession other than my own, the ones that invoke some notion of activity actually have an advantage over the ones that do not do so. For if x does not engage in some sort of activity in relation to y, and if y does not engage in some sort of activity in relation to x, then x and y will be in an important sense *inert* with respect to each other. But if x and y are inert with respect to each other, then unless something else brings them together with each other somehow, thus engaging in some activity in relation to them both, it is difficult to see how y could have anything to do with x's being red. To put the point another way, the notion that the property of being red *affects* the entity said to possess it, thereby making it red, is one that has been with us in one form or other since Plato. The notion may seem unduly mysterious, regardless of whether one attempts to cash it out in terms of formal causation or not. But unless ones invokes this or some other, sufficiently similar notion of activity, if one still insists that the property of being red and the entity said to possess it are numerically distinct from each other, it is not clear how this entity and property could ever stand to each other in such a way that we would be entitled to say of the former not only that it is red, but also that it is red by virtue of its standing in this way to the latter. In that case, however, it is not clear what would entitle us to say that the former genuinely possesses the latter as a property.

At this point, we can derive the following from (P3) and (P10):

(P11) Either y is not a non-part of x, or else y bears the relation of formal causation to x.

And we can derive the following from (P9) and (P11):

(P12) y is not a non-part of x.

The next premise of the argument is this:

(P13) If y is a proper part of x, then either y is red, or else y is not red.

As in the case of (P2), I assume that y is red just in case the property of being red can be truly predicated of y. And as in the case of (P2), it does not matter for our purposes whether this property is assumed to be a universal, or whether it is assumed to be a particular instead. Nor does it even matter whether this property is assumed to be numerically identical to y, or whether that property and y are assumed to be numerically distinct from each other. For not even the claim that some properties possess themselves can save the claim that it is possible for one entity to possess a second entity as a property. Given these points, I take (P13) to be trivially true.

The next premise of the argument is this:

(P14) If y is a proper part of x, and y is not red, then it is not the case that x is red in virtue of the obtaining of a relation between x and y.

There are two reasons why this premise is true. The first is that it is not clear why, out of all of the non-red entities in the world, it is y that is relevant to x's being red in the end. Of course, one might object that y alone is relevant because 1) y is a proper part of x, and 2) y is the property of being red. But this objection is inadequate, since there is a sense in which it simply misses the point. After all, what I am asking is: Out of all of the non-red entities in the world, what is so unique about y that it counts as the (or a) property of

being red in the first place? In other words, I am asking: What is so unique about y, such that when y comes to be a part of x, the formerly non-red x comes to be red? That is to say, what is so unique about y that it can transform x in this way? The second reason is that even if we simply grant that it is y that is relevant to x's being red, it is still difficult to see how could be relevant in this respect. In other words, it is difficult to see how y could make x red. Certainly one might suggest that y makes x red either by bearing some causal relation to x, or by engaging in some sort of activity in relation to it. But as we saw above, the notions of causation and activity seem problematic in this context. On the other hand, one might suggest that y makes x red simply by being a proper part of x. But this objection is implausible. For it really is difficult to see how x could come to be red simply by having a non-red entity as a part.

At this point, we can derive the following from (P3) and (P14):

(P15) Either it is not the case that y is a proper part of x, or else y is red.

The next premise of the argument is this:

(P16) If y is a proper part of x, then even if y is red, it is still not the case that x is red in virtue of the obtaining of a relation between x and y.

As in the case of (P14), there are two reasons why this premise are true, which parallel the reasons for that premise. The first is that it is not at all clear why, out of all of the red entities in the world, it is y that is relevant to x's being red. Again, one might object that y is relevant to x's being red because 1) y is a proper part of x, and 2) y is the property of being red. But again, this objection misses the point. For again, what I am asking is: Out of all of the red entities in the world, what is it in virtue of which, when y comes to be a part of x, this formerly non-red entity comes to be red? The second reason is that

even if we simply grant that it is y that is relevant to x's being red, it is difficult to see how y could be relevant in this respect. In other words, it is difficult to see how y could make x red. Again, one might suggest that y makes x red either by bearing some causal relation to it, or by engaging in some sort of activity in relation to it. But again, those notions seem problematic here. On the other hand, one might suggest that y makes x red simply by being a proper part of x. But it can't be that x is red by fiat simply because it has a red proper part. After all, the universe as a whole is not red, even though it contains a multitude of red proper parts, presumably at least one of which is the property of being red.

At this point, we can derive the following from (P3) and (P16):

(P17) Either y is not a proper part of y, or else y is not red.

The next premise of the argument is this:

(P18) Either y is red, or else y is not red.

This premise is trivially true. But from (P15), (P17) and (P18) we can now derive the following:

(P19) Either y is not a proper part of x, or else y is not a proper part of x.

And from (P19) we can derive this:

(P20) y is not a proper part of x.

Thus, it remains only to be shown that y is not a non-proper part of x to which x is not identical.

The next premise of the argument is this:

(P21) If y is a non-proper part of x to which x is not identical, then x's being red does not amount to the obtaining of a relation between x and y.

I am the first to admit that I have nothing new to say about why this premise is true. If y is a part of x, then either the relation that obtains between x and y is a causal one, or else it is not. And if it is not, then either it is one that implies existence of activity on the part of x or y, or else it does not. Now we have already seen that these alternatives are problematic, regardless of whether or not y is assumed to be red. And we have seen that x's being red cannot just amount to y's being red if x and y are numerically distinct from each other. But in that case, I seem entitled to conclude that (P21) is true.

At this point, we can derive the following from (P3) and (P21):

(P22) It is not the case that y is a non-part of x that is not identical to x.

Furthermore, we can derive the following from (P12), (P20) and (P22):

(P23) y is not a non-part of x; y is not a proper part of x; and y is not a non-proper part of x to which x is identical.

Since this premise conjoined to (P5) constitutes a formal contradiction, we can conclude this:

(C) x does not bear the relation of property possession to y if x and y are numerically distinct from one another.

Hence, it is not possible for one entity to possess a second entity as a property.

According to my account, if x possesses the property of being red, then x is identical to that property. So according to my account, if x possesses the property of being red, then x cannot be a qualitatively complex entity, such as a red, rubber ball (given that there will be more to the nature of that ball than its color). Instead, according to my account, if x possesses the property of being red, then x is what I call an instance of redness. Indeed, according to my account, if x possesses the property of being red, then x

just is the redness of x. As I said above, to claim that x is an instance of redness is not to claim that x is capable of existing independently of all other entities – floating free, as it were. I claim that no property can exist without being a part of the nature of some entity or other. So if x is an instance of redness, it will be a part of the nature of some entity, such as a red, rubber ball. Other properties that are parts of the nature of that ball include a certain shape, size, mass, density, texture, and so forth. The property possessed by the ball is that nature as a whole.

CHAPTER IV REBUILDING THE WORLD

Introduction. In this chapter, I define what I call the nature of an entity. I argue for the view according to which there is nothing more to any given entity than the nature of that entity. And I show that by utilizing my view, I can rebut a wide variety of objections to my account of property possession as identity.

The nature of an entity. What is the nature of an entity? As we have seen, in his *A World of States of Affairs*, David Armstrong defines what he calls the nature of a particular as the property possessed by that particular that is the conjunction of all of the (non-relational) properties possessed by the particular. As one will recall, he writes:

> So let us conjoin all the non-relational properties of a certain particular, a, or perhaps, in order to allow for temporal parts, *a* at a certain time. Call the resultant the property N (for nature). The thick particular *a* is now seen to be identical with the state of affairs of a's being N (1997, p. 125).

But there are three problems with this definition. The first is that whereas it defines the nature of a particular as a conjunctive one, there are no such properties, as we saw in chapter one. The second is that there seems to be a logical problem with the claim that the nature of a particular is the conjunction of all of the properties possessed by the particular, when the nature itself is one of those properties; for this seems to amount to the claim that the conjunction itself is one of its own conjuncts. And the third is that this definition is incomplete. There is more to the nature of an entity than the properties that can be truly predicated of that entity. In the very least, there are also the properties that can be truly predicated of that entity's parts. Thus, an alternative definition is required.

According to my definition, the nature of x is the more or less complex property possessed by x that is complete and total in the sense that it has as parts not only all of the

properties that can be truly predicated of x, but also all of the properties that can be truly predicated of x's parts, as well as whatever relations there are that obtain between those various properties. For example, according to my definition, the nature of a red, rubber ball is the more or less complex property possessed by the ball that is complete and total in the sense that it has as parts not only a certain shape, size, mass, density, color, texture, and so forth, but also all of the properties that can be truly predicated of the ball's parts.

There are four points concerning my definition that should be noted prior to proceeding. The *first* is that it avoids the problems that beset Armstrong's definition. To begin with, according to my definition, while the nature of an entity is a property, it is not a conjunctive one. So according to my definition, if the nature of an entity is complex, it will be complex in the sense that it has two or more properties as proper parts, not in the sense that it has two or more properties as conjuncts. My definition also avoids the logical problem that besets Armstrong's. For according to my definition, while the nature of an entity is indeed a property possessed by that entity, that nature is a non-proper part of itself, not a proper one. Finally, my definition of the nature of x obviously incorporates not only the properties that can be truly predicated of x, but also all of the ones that can be truly predicated of x's parts.

The *second* is that my definition is compatible with the claim that, given any entity, the nature of that entity is atomic. That is to say, it is compatible with the claim that, given any entity, the nature of that entity does not have any properties as proper parts. The definition is also compatible with the claim that, given any entity, the nature of that entity is not atomic. That is to say, it is also compatible with the claim that, given any entity, the nature of that entity has two or more properties as proper parts. And the

definition is compatible with the claim that while the natures of some entities are atomic, the natures of other entities are not. It seems obvious to me that the natures of at least some entities are not atomic. But beyond that I am going to remain non-committal on that issue for the purpose of this essay. Certainly my account does not commit me to any particular view regarding this issue.

The *third* is that my definition is neutral on the question of whether the properties in the nature of an entity bear various relations to each other in addition to the mereological ones that obtain between them. In particular, it leaves open the possibility that the properties in the nature of an en entity bear various non-mereological relations to each other in virtue of which those properties are unified together with each other in a specific sort of way. At the same time, however, it also leaves open the possibility that the only unification that the properties in a nature have with respect to each other is the unification afforded by the mereological relations they bear to each other, which I admit is not very much unification at all. I will discuss what I call the problem of property-unification in greater detail below.

The *fourth* is that, given the definition, it is true to claim that for any entity, there is such a thing as the nature of that entity. As we saw in the first chapter, given any entity, that entity possesses at least one property. But if any entity possesses a property, it follows that any entity possesses a nature, given the definition of the nature of an entity. To see this point clearly, let us assume that x possesses just one property and that no other properties can be truly predicated of x or of its parts. In that case, the nature of x will be just that one property that x possesses. Now let us assume that more than one property can be truly predicated of x or of its parts. In that case, the nature of x will have

those extra properties as parts. Of course, at this point one might object that even if more than one property can be truly predicated of x or of its parts, this does not imply that those properties compose the nature of x. But this objection is implausible. First of all, if more than one property can be truly predicated of x or of its parts, it seems plausible to suppose that those properties compose something. In any case, this much is entailed by the principle of unrestricted composition, according to which, given any set of entities, all and only the elements of that set are the proper parts of some mereological whole. Second if those properties compose something, it seems mysterious that what they compose is something that is not itself a property. It seems much more plausible to suppose that what they compose is just another property, albeit one that is more complex than any of the properties that it has as proper parts. (I will return to this point below.) And third, it seems even more mysterious still to suppose that if those properties compose a more complex property, then that property is not possessed by x. After all, if it is not possessed by x, it is difficult to see what else would possess it. And it is even more difficult to see how it could fail to be possessed by anything at all.

N and its truth. Let N be the view according to which there is nothing more to any given entity than the nature of that entity. N is true. First of all, as we saw in the previous chapter, given any entity, that entity possesses one and only one property, namely, itself. Second, as we saw in the previous section, given any entity, if that entity possesses only one property, then that property is the nature of that entity. Now if any entity possesses one and only one property, if this entity is identical to this property, and if this property is the nature of that entity, then it follows that, given any entity, that entity

is identical to its nature. But if any entity is identical to its nature, it follows that N is true.

Objections and replies. In the remainder of this section, I will show that by utilizing N, I can rebut a wide variety of objections to my account of property possession as identity. The *first* objection is as follows. There is at least one entity that is qualitatively complex in the sense that we can truly predicate two or more properties of it. For example, a red, rubber ball is qualitatively complex in the sense that we can truly predicate of it not only a certain color, but also a certain shape, size, mass, density, texture, and so forth. Now for an entity to be qualitatively complex is for that entity to possess two or more properties. But if an entity possesses two or more properties, then if my account of property possession is true, that entity will be identical to those two or more properties. But nothing can be identical to two or more entities. Thus, my account of property possession is false.

In response to this objection, while I grant that many (if not all) entities are qualitatively complex in the manner described, I deny that for an entity to be qualitatively complex is for that entity to possess two or more properties. After all, an entity could possess two or more properties only if it were possible for one entity to possess a second entity as a property. But this is not possible, as was shown in the previous chapter. Instead, according to N, for an entity to be qualitatively complex is for the nature of that entity to have two or more properties as proper parts. So, for example, for a red, rubber ball to be qualitatively complex is for the nature of that ball to have as proper parts a certain shape, size, mass, density, color, texture, and so forth.

The *second* objection is as follows. There is at least one property that is possessed by two or more entities. Now if there is at least one property that is possessed by two or more entities, then if my account of property possession is true, then that property will be identical to those two or more entities. But, again, nothing can be identical to two or more entities. Thus, my account of property possession is false.

According to my response to this objection, there are no properties that are possessed by two or more entities. After all, a property could be possessed by two or more entities only if it were possible for one entity to possess a second entity as a property. But this is not possible, as we saw in the previous chapter.

Of course, at this point one might claim that by simply biting the bullet in this manner in response to this objection, I commit myself to the truth of Nominalism, or the view that there are no such things as universals.[103] But in fact I do not. On the one hand, I grant that my account commits me to the truth of Nominalism, if universals are defined as properties that are capable of being possessed by more than one entity. But, on the other hand, I insist that my account is perfectly compatible with the truth of Realism about universals, if they are defined as properties that are capable of existing in more than one place at a time. To see this point clearly, let properties 1 and 2 be the proper parts of nature N1, and let properties 2 and 3 be proper parts of nature N2. Now property 2 obviously counts as a universal on the latter definition, since it is a property that exists in more than one place at a time. But according to the former definition, none of the properties that are parts of N1 or N2 are universals, including N1 and N2 themselves; for none of them are possessed by more than one entity. According to my account, 1 is possessed only by 1, 2 only by 2, 3 only by 3, N1 only by N1 and N2 only by N2.

[103] This objection was raised by David Armstrong in personal correspondence.

It should also be noted that my account of property possession is also compatible with Realism about universals, if they are defined as properties that are capable of being predicated of more than one entity.[104] Consider the nature of the red, rubber ball. As I explained above, the nature of that ball has as a part the property of being red. According to my account, since that property possesses itself, it can be truly predicated of itself. But as I explained at the end of the previous section, it can also be truly predicated of the ball itself. Since this property can be truly predicated of itself and of the ball as a whole, and since this property and this ball are numerically distinct from each other, that property counts as a universal according to this latest definition.

The *third* objection is as follows. The relation that an entity bears to a property just in case that entity possesses that property is the same as the relation that an entity bears to a property just in case that property can be truly predicated of that entity.[105] If these relations are the same, however, then since there is at least one entity of which two or more properties can be truly predicated, there is at least one entity that possesses two or more properties. And if there is an entity that possesses two or more properties, then if my account is true, that entity will be identical to those two or more properties. But nothing can be identical to two or more entities. Thus, my account is false.

In response to this objection, I deny that the relation that an entity bears to a property just in case that entity possesses that property is the same as the relation that an entity bears to a property just in case that property can be truly predicated of that entity. On the one hand, I grant that if an entity possesses a property, then that property can be truly predicated of that entity. But, on the other hand, I deny that if a property can be

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[104] This is the definition of universals Aristotle offered in *On Interpretation*.

[105] This objection was raised by Cian Dorr in personal correspondence.

truly predicated of an entity, then that entity automatically possesses that property. Instead, I claim that if a property can be truly predicated of an entity, then that property is a part of the nature of that entity. In those cases in which the property that can be truly predicated of x is not identical to x, that property is either a proper part of the nature of x, or a non-proper part of that nature to which it is not identical. And in those cases in which the property that can be truly predicated of x is identical to x, that property is the non-proper part of the nature of x to which it is identical. At this point, one might allege that the claim that a property can be truly predicated of an entity only if that property is a part of the nature of that entity is no substitute for the claim that a property can be truly predicated of an entity only if that entity possesses that entity. But since we are operating at such a high level of abstraction here, I do not find this allegation to be very credible. In any case, given that the latter claim is true only if it is possible for one entity to possess a second entity as a property, one has no reason for preferring the latter claim to the former one that is not undermined by the argument of chapter three.

At this point, it is important to note that while I claim that a property can be truly predicated of an entity only if that property is a part of the nature of that entity, I do not claim that if a property is a part of the nature of an entity, then that property can automatically be truly predicated of that entity. In fact, I do not believe that we can correctly specify a set of necessary and sufficient condition under which a property can be truly predicated of an entity in purely mereological terms. For example, one might suggest that a property can be truly predicated of an entity just in case that property is a proper part of the nature of that entity. But this suggestion is false twice over. First of all, it is not the case that if a property is a proper part of the nature of an entity, then that

property can be truly predicated of that entity. For example, even though the property of being red is a part of the nature of the universe as a whole, given that it is a part of the nature of some entity that is itself a part of the universe (e.g., a red, rubber ball), the universe is not red. Second, it is not the case that if a property can be truly predicated of an entity, then that property is a proper part of the nature of that entity. For example, even though an instance of redness can be truly predicated of itself, that property is a non-proper part of its nature, not a proper one.

On the other hand, one might also suggest that a property can be truly predicated of an entity just in case that property is a non-proper part of the nature of that entity. But this suggestion is also false twice over. First of all, it is not the case that if a property can be truly predicated of an entity, then that property is a non-proper part of the nature of that entity. For example, we may still be able truly to say of a cup that it is red even if it is not red all over, in which case the property of being red will be a proper part of the nature of that cup. Second, it is not the case that if a property is a non-proper part of the nature of an entity, that that property can be truly predicated of that entity. For example, if one draws a circle on a piece of white paper with a pencil and then paints in that circle with black paint, then even though the instance of whiteness that exists beneath that layer of paint is a non-proper part of the nature of the circle, the property of being white cannot be truly predicated of the circle, since we are much more inclined to say of the circle that it is black.

Then again, one might even suggest that a property can be truly predicated of an entity just in case that property is a part of the nature of that entity. But this suggestion is false as well. Again, on the one hand, I grant that if a property can be truly predicated of

an entity, then that property is a part of the nature of that entity. But, on the other hand, I deny that if a property is a part of the nature of an entity, then that property can be truly predicated of that entity. The case of the universe and the property of being red again shows this much.

As I said, I do not believe that we can specify the conditions under which a property can be truly predicated of an entity in purely mereological terms. In fact, I do not believe that these conditions can be specified at all; for as far as I am able to determine, these conditions are at least a partially conventional, even subjective, matter. To see this point clearly, let us again imagine using a pencil to draw a circle on a piece of white paper. Now let us imagine painting over a very small portion of that circle with black paint. Is the circle now black? Presumably most would say that it is not. But what happens as we begin to paint more and more of the circle black? At what point are we to pronounce it a black circle? Presumably the answer one gives will differ from person to person. Of course, at this point one might object that while I may be correct about this one particular example, the point I am making about it does not generalize to other cases. But it does. For example, what are the occasions on which we are really and truly prepared to say that the property of being a circle can be truly predicated of an entity? To be sure, there may be some cases on which it is perfectly objective that a property can be truly predicated of an entity. But since there are also some cases on which it is not, the conditions under which a property can be truly predicated of an entity are at least partially conventional, even subjective, in nature. As a consequence, I have no intention of attempting to spell them out in an exhaustive manner here, since I simply do not see this task as one that falls under the purview of metaphysics. It is sufficient to note that

according to my view, if a property can be truly predicated of an entity, then that property is a part of the nature of that entity.

The *fourth* objection, which is related to the third, is that since there is a real distinction to be drawn between the 'is' of predication and the 'is' of identity, there must be a real distinction to be drawn between property possession and identity. But this objection is inadequate. On the one hand, I grant that there is, of course, a distinction to be drawn between the 'is' of predication and the 'is' of identity, even on my account. For according to my account, whereas the 'is' of predication corresponds to the relation of parthood, the 'is' of identity corresponds to the relation of non-proper parthood. But, on the other hand, even though there is a real distinction to be drawn in language between the one 'is' and the other, this does not entail that there is any kind of real distinction to be drawn in extra-linguistic reality between one relation and the other. And even if it did, presumably it would only entail that there is a real distinction to be drawn between the relation that an entity bears to a property just in case that property can be truly predicated of that entity and the relation of identity. But in that case, it would not entail that there is a real distinction to be drawn between the relation of property possession and the relation of identity, given that I have already argued that the relation that an entity bears to a property just in case that property can be truly predicated of an entity is not the same as the relation that an entity bears to a property just in case that entity possesses that property.

The *fifth* objection, which is based on temporal considerations, is as follows. According to my account, if an entity possesses a nature, then that entity is identical to that nature. Furthermore, if an entity is identical to its nature, then since the principle of

mereological extensionalism is true, the set of properties that are the proper parts of the nature of an entity at time t1 will be identical to the set of properties that are the proper parts of the nature of that entity at time t2. Now if the set of properties that are the proper parts of the nature of an entity at t1 is identical to the set of properties that are the proper parts of the nature of that entity at t2, then no entity will ever undergo qualitative change. But some entities do undergo such change. Thus, my account of property possession is false.

It is important to note that if this objection presents an insurmountable obstacle for my account of property possession, then it would present such an obstacle for a wide variety of other views, as well. First of all, it would present an obstacle for the Bundle Theory. After all, since that theory identifies an object with a bundle of properties, it follows that if the principle of mereological extensionalism is true, then the set of properties that compose an object at time t1 will be identical to the set of properties that compose that object at time t2. Second, it would also present an obstacle for the Substratum Theory. After all, since that theory identifies an object as a bundle of properties plus a substratum, it follows that if the principle of mereological extensionalism is true, then the set of properties plus a substratum that composes an object at time t1 will be identical to the set of properties plus a substratum that composes that object at time t2. Consequently, one potential response to the objection is to adopt a version of Purdurantism about change. Now, to be sure, there is some controversy over exactly how Purdurantism is to be formulated. But, according to the basic idea of the view, material objects are four-dimensional entities that are composed of temporal stages. Accordingly, on this view, the nature of an entity would be similarly composed. So

according to this view, an entity's undergoing change amounts to the fact that whereas one stage of the nature of that entity has one set of properties as proper parts, another stage of the nature of that entity has another set of properties as proper parts. Still, this is not the reply to the objection I endorse.

My reply to the objection is simply to reject the principle of mereological extensionalism as false. On the one hand, I grant that if x and y exist simultaneously, then if x and y are numerically identical to each other, they share all of their proper parts in common. But, on the other hand, I deny that if x and y exist simultaneously, then if x and y share all proper parts in common, they are automatically identical to each other, even assuming that they have some proper parts in the first place. (For example, as I said above, I regard the color and shape of the red, rubber ball as being numerically distinct non-proper parts of each other.) Furthermore, I also deny that if x and y do not exist simultaneously, then if x and y are identical to each other, then they share all of the same proper parts, even assuming that they have proper parts. (To be sure, the point is controversial, but I believe that even though the set of properties in my nature ten years ago is not identical to the set of properties in my nature now, I am the same person I was ten years ago.) And I certainly reject the claim that if x and y do not exist simultaneously, then if x and y share all proper parts in common, then x and y are automatically identical to each other, even assuming that they have such parts in the first place. (For example, I do not believe that if a person living today is reconstituted out of the parts that constituted Julius Caesar, then that person would be identical to Caesar.) So even though the principle of mereological extensionalism is only false once over when considered synchronically, it is false twice over when considered diachronically.

The sixth objection, which is based upon modal considerations, is as follows. According to my account, if an entity possesses a nature, then that entity is identical to that nature. Furthermore, if an entity is identical to its nature, then since the principle of mereological extensionalism is true, the set of properties that are actually proper parts of the nature of an entity will be identical to the set of properties that must be proper parts of the nature of that entity. Now if the set of properties that are actually proper parts of the nature of an entity will be identical to the set of properties that must be proper parts of the nature of that entity, then all of the properties in the nature of an entity are essential to it. But not all of the properties in the nature of at least some entities are essential to them. Thus, my account of property possession is false.

As in the previous case, it is important to note that if this objection presents an insurmountable obstacle for my account of property possession, then it will present such an obstacle for a wide variety of other views, as well. First of all, it will present an insurmountable obstacle for the Bundle Theory. After all, as we have seen, that theory identifies an entity as a bundle of properties. Consequently, given any bundle of properties, if the principle of mereological extensionalism is true, then the set of properties that are actually proper parts of that bundle will be identical to the set of properties that must be proper parts of that bundle. Second, it will also present an insurmountable obstacle for the Substratum Theory. After all, as we have seen, that theory identifies an entity as a bundle of properties plus a substratum. Consequently, given any bundle of properties and substrata, if the principle of mereological extensionalism is true, then the set of properties and substrata that actually are proper

parts of that bundle will be identical to the set of properties and substrata that must be proper parts of that bundle.

As in the case of the previous objection, there are at least two possible replies to this objection. The first is simply to deny the truth of the principle of mereological extensionalism. And the second is simply to accept that the set of properties that are actually proper parts of the nature of an entity is identical to the set of properties that must be proper parts of the nature of that entity. Certainly the latter will not strike most as being very plausible. But it has been recently defended. In any case, I have already argued that the principle of mereological extensionalism is false. So this response will suffice for this objection.

According to the seventh objection, whereas identity is transitive, symmetrical and reflexive, property possession is not. But I do not claim that property possession is just any transitive, symmetrical and reflexive relation; I claim it is the transitive, symmetrical and reflexive relation that any given entity bears just to itself. By pointing out that property possession is not just any transitive relation, I can avoid objections of the form: one entity possesses a second entity as a property and the second possesses a third only if the first possesses the third. And by pointing out that property possession is not just any symmetrical relation, I can avoid objections of the form: one entity possesses a second entity as a property only if the second possesses the first. But is property possession reflexive for all entities? One might think not. After all, if every entity bears the relation of property possession to itself, then since all entities will possess themselves as properties, all entities will turn out to be properties in and of themselves. That is to say, the world will be a world of properties alone. Now one might take this to

be a very implausible implication, but I do not. In fact, I find it plausible. After all, to say that the world is a world of properties that possess themselves is just to claim that the world is a world of intrinsically qual To be sure, some will assume that if the world is a world of properties alone, then the world will be utterly devoid of substances, events, processes, and so forth. But it is one thing to eliminate these ontological categories, and quite another to reduce them. What I am suggesting is that all ontological categories (other than the category of properties) are to be reduced to sub-categories within the category of property. That way, there can still be things such as substances, events and processes in a world of properties alone, so long as there is noting more to any one of them that its nature.

Of course, at this point one might object that while it is one thing to say that all ontological categories can be reduced to the category of properties, and quite another to work out all of the many specific details of this reduction. The point is granted. But the purpose of this section is not completely to reconstruct the world on the basis of my account of property possession. Rather, it is to show that such a reconstruction can in principle be completed. There are two reasons why such a reconstruction will not occur in this essay. The first is that, practically speaking, it cannot be. Indeed, a complete analysis of the ontological structure of entities – complete with exhaustive discussions of change, modality, universals, unification, individuation and the rest – simply lies outside the scope of the present essay. At the same time, however, I do believe I managed to show that my account of property possession is compatible with a variety of different positions regarding the ontological structures of entities. That is to say, I believe I managed to show that my account presents us with options. This seems to be an

achievement in its own right. The second is that unreasonable to expect the reconstruction to be done here. This has been an essay about property possession, not the ontological structure of entities. While the problem of property possession has frequently been conflated with other problems, or even ignored or simply overlooked, it was my assumption all along that this problem merited being addressed in its own right.

CHAPTER V AN ONTOLOGICAL PAYOFF OF MY ACCOUNT

Introduction. In this section, I examine one of the ontological payoffs of my account of property possession as identity, which is that it provides a refutation of the substratum Theory of substance.

The bundle and substratum theories are two traditional theories concerning the ontological composition of entities. According to the former, there is nothing more to any given entity than its properties (and the relations that obtain between them), whereas according to the latter, there is something more to it than them.[106] While this extra ontological ingredient is sometimes referred to as a thin particular,[107] or a bare particular,[108] or matter,[109] since it is usually referred to as a substratum, this is how I will refer to it in the present section.

At this point, it should be clear that if my account of property possession as identity is true, then the substratum theory of substance will be false. Now, first of all, as we saw in the previous chapter, if my account of property possession is true, then there will be nothing more to any given entity than the nature of that entity. But, secondly, at this point it should be clear that if there is nothing more to any given entity than the nature of that entity, then the substratum theory of substance will be false. After all,

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[106] These theories are neutral on metaphysical questions concerning mereological composition, such as whether mereological constitution is to be regarded as an identity-relation. They are also at least somewhat neutral on the issue of what it is for something to be a substance. For a discussion of this issue, see Hoffman and Rosenkrantz (1997).

[107] See Armstrong (1978).

[108] See Bergmann (1967).

[109] See Heller (1990).

according to that theory, there is at least one entity, such that there is more to that entity than its nature. Thus, if my account is true, the substratum theory is false.

The fact that my account of property possession provides this refutation of the substratum theory is, I submit, a good thing. After all, it is widely agreed that the bundle theory enjoys certain advantages over the substratum theory. For example, the substratum theory has long been derided by empiricist-minded philosophers for postulating the existence of something that seems in principle unperceivable. Of course, that theory is still seen by some as a viable option, since it is alleged to have two principle advantages of its own. The first is that unless we postulate the existence of substrata, we will be unable to solve what I call the problem of property unification. And the second is that unless we postulate their existence, we will be unable to solve what I call the problem of the principle of individuation. (I will describe these problems in greater detail below.) In the following sections, however, I will argue that these alleged advantages are not genuine ones. To accomplish this aim, in section two I will argue that the substratum theory actually does not solve the problem of property unification, but rather defers it. And in section three, I will argue that the substratum theory's solution to the problem of the principle of individuation is actually incoherent.

The problem of property unification. In this section, I argue that the Substratum Theory does solve the problem of property unification, but rather defers it.

What is the problem of property unification? It has long been observed that the properties of an entity are unified together with each other in the sense that, while they may be separable from each other in thought at given moment, they are not actually

separate from each other in reality at that time.[110] As Leibniz put it, the properties of a monad do not get up and go for a stroll.[111] Consider the case of the red, rubber ball. While we can certainly distinguish between the color and shape of that ball, there is nevertheless a sense in which they do not exist apart from each other.[112] Given the existence of this phenomenon, there arises the question of exactly how to account for it. This question poses what I call the problem of property unification: Given any entity, E, what is it in virtue of which the properties of E are unified together with each other in the first place?

Not surprisingly, according to the Substratum Theory, E's substratum is that in virtue of which the properties of E are unified together with each other. Arda Denkel, a recent Substratum Theorist, puts the point thus:

> My resolute observance of the principle of inherence implies that if, on my view, by existing together properties form objects, this is not that they – as it were optionally – come together to do so; it is because they must exist in such a way. What would rule out Aristotle's insight altogether is the acceptance of free-floating qualities; nor is this something logically impossible. I believe, however, that such a thing is excluded in every other sense of possibility. I repudiate, therefore, Hume's view that 'Every quality being a distinct thing from one another, may be conceiv'd to exist apart, and may exist apart, not only from every other quality, but from that unintelligible chimera of a [substratum]'. On the contrary, I think the really nightmarish thing would be a world in which qualities disperse at large rather than leading a disciplined existence as they do when they are imprisoned within objects.[113]

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[110] There are, of course, a variety of issues about how this unity plays out over time. But in this section I am only concerned with what we might call the synchronic unity of the properties of S, as opposed to their diachronic unity. In particular, I am not concerned here with issues having to do with essential properties, or change over time. Those issues will be dealt with in the next section.

[111] See section seven of the *Monadology*. Admittedly, Leibniz held a rather unorthodox view about which things count as substances. But the claim he makes about the unity of the properties of substances seems to be widely held.

[112] I do not presume that this unity amounts to spatial co-location. Presumably the substratum theorist who believes that there are non-spatial substances will still insist that the properties of those substances enjoy a sort of unity with respect to each other that is not spatial at all.

[113] See Denkel's (1996, p. 12).

But when Denkel claims that the qualities of objects are imprisoned within them by their substrata, it is almost as if he is claiming that if the substratum of E suddenly were to cease to exist for whatever reason, the properties of E would immediately disperse at large like so many un-tethered balloons released into a strong wind.

The Substratum Theory does not solve the problem of property unification, but rather defers it. First of all, if one claims that the properties of E are unified together with each other by the substratum of E, presumably one has to concede that those properties and that substratum are, in turn, unified together with each other. After all, if the properties of E are unified together by the substratum of E, presumably this is *because* those properties are unified to that substratum. Indeed, if those properties are not unified to the substratum of E, then even if we simply grant that those properties are unified together with each other, then since it is difficult to see how they could be unified to that substratum, it is difficult to see how they could be unified to E itself. Now if one claims that the properties and substratum of E are unified together with each other, then the question arises: What is it in virtue of which those properties and that substratum are unified together with each other in the first place? Yet the mere fact that this question arises is sufficient to show that the Substratum Theory does not solve the problem of property-unification, but rather defers it.

Of course, at this point presumably the Substratum Theorist will object that E's substratum itself is that in virtue of which those properties and that substratum are unified together with each other. That is to say, presumably they will suggestion that the substratum of E simply unifies the properties of E to itself. But I have three replies to this objection. The *first* is that it is difficult to see exactly how this suggestion could be

made to work. Some have claimed that the substratum of E unifies the properties of E to itself by bearing a certain relation to them (e.g., support, or the converse of inherence). But to make this claim is just to defer the problem of property-unification yet again. For instead of asking "What is it in virtue of which the properties and substratum of E are unified together with each other?" we now have to ask: What is it in virtue of which those properties, that substratum and that relation are unified together? On the other hand, one might also suggest that the substratum of E unifies the properties of E to itself in some non-relational manner – by exuding a kind of metaphysical magnetism, as it were. But even if we do not simply reject the notion of metaphysical magnetism out of hand, there is yet a more economical suggestion to be made. According to it, the properties of E simply manage all by themselves to become unified together in a non-relational manner, without the need of anything else – anything extra – to do it for them. According to this suggestion, in other words, the properties of E themselves exude metaphysical magnetism. I will return to this suggestion below.

The *second* response is that even if we simply grant that the substratum of E somehow manages to unify *some* of the properties of E to itself in either a relational or non-relational manner, this does not entail that it thereby succeeds in unifying all of those properties to itself. It may be entirely easy to imagine that the substratum of a relatively small-sized spatial entity can manage with little difficulty to unify all of the properties of that entity to itself. But it is more difficult to see how the substratum of a large-sized spatial entity could manage to do the same, given that not all of the properties of that entity will be in close spatial proximity to each other. Are some substrata metaphysically more magnetic than others?

The *third* is that even if we grant that the substratum of E somehow manages to unify all of the properties of E to itself, this does not entail that it succeeds in unifying only those properties to itself. Why are the properties of one spatial entity not automatically unified to the substrata of nearby entities, never mind the substrata of other entities far away? How can substrata be selective in their metaphysical magnetivity?

In this essay, I will not attempt to offer a solution to the problem of property-unification. Suffice it to say that my account of property possession is perfectly compatible with the following three claims. First, the properties of an entity unify themselves together via some sort of metaphysical magnetism. Second, the properties of an entity unify themselves together via some sort of non-mereological relation that they bear to each other. Third, there is no more unity to the properties in the nature of an entity than the fact that those properties are parts of that nature.

The problem of the principle of individuation. In this section, I will argue that the Substratum Theory's solution to the problem of the principle of individuation is incoherent.

The problem of the principle of individuation is the problem raised by the question: Given any entity, E, what is it in virtue of which E is numerically distinct from all entities other than E? On some occasions, this problem is introduced by way of an example involving entities that are indiscernible from each other. For instance, one is asked to consider two indiscernible spheres, and then to consider the question of what makes those two spheres numerically distinct from each other in the first place. But there are two problems with the methodology of presenting the problem in this way. The first

is that the notion of indiscernibility is actually a red herring insofar as the problem is concerned. After all, it is not as if the problem of accounting for what it is in virtue of which two discernible entities are numerically distinct from each other is any less of a problem than the one of accounting for what it is in virtue of which two indiscernible entities are numerically distinct from each other. And the second is that this way of proceeding seems to suggest that E's principle of individuation will count merely as something in virtue of which E is numerically distinct from those entities that are indiscernible from E (or those entities that share the same species as E, etc.). But as I will argue below, if I_e is something in virtue of which E is numerically distinct from those entities that are indiscernible from E (or those entities that share the same species as E, etc.), then I_e will be something in virtue of which E is numerically distinct from absolutely all entities other than itself.

Prior to proceeding, it should be noted that the problem of the principle of individuation is a metaphysical one. As such, it ought to be distinguished from a variety of epistemological problems that have in some way to do with individuation, such as the problem of identifying that in virtue of which we can perceptually discern E from various entities other than itself. For, as I will argue below, even if we can discern E from all other entities by (say) its spatio-temporal location, E's location is not that in virtue of which it is numerically distinct form those other entities in the first place.

It should also be noted that the principle of individuation is also to be distinguished from a variety of other metaphysical problems concerning the notion of individuation. For example, it is to be distinguished from the problem of specifying informative and true individuation-conditions for various classes of entities. For it may

well be true that if E and E' are spatial entities, then they are numerically identical to each other just in case they share the same spatio-temporal location. But, as I indicated above, even if E and E' are two numerically spatial entities that have two different spatial locations, their locations are not that in virtue of which they are numerically distinct from each other to begin with.

The problem of the principle of individuation is a problem with a long history and, over time, a variety of solutions to it have been proposed. According to the Substratum Theory, of course, E's principle of individuation is to be identified with E's substratum. But according to others, it is to be identified with E's spatio-temporal location. According to others, it is to be identified with (some or all of) E's qualitative properties.[114] And according to others, it is to be identified with (some or all of) E's non-qualitative properties (e.g., E's haecceity).[115] However, at this point it is important to note that despite whatever differences there are between these various views, they all share a common presupposition, which is that E's principle of individuation is numerically distinct from E itself. This should be especially clear in the case of the Substratum Theory. As we have seen, according to that theory, there is something more to E than its properties. Since this theory identifies this extra ontological ingredient with the substratum of E, that theory is thereby committed to the claim that there is something more to E than its substratum (i.e., its properties). But in that case, that theory is committed to the claim that E and its substratum are numerically distinct from each other.

At this point, we face an important question: If we let I_e be E's principle of individuation, then regardless of whether we identity I_e with E's substratum or with

[114] This seems to be Leibniz's view. See section nine of the *Monadology*.

[115] This option is explored in Rosenkrantz (1993).

something else, what is it for I_e to be something in virtue of which E is numerically distinct from all other entities in the first place? Though this question has been addressed in an explicit manner all too infrequently, there are some who seem to claim that if I_e is something in virtue of which E is numerically distinct from all other entities, then I_e is something that somehow makes E numerically distinct from those entities. But in all fairness, it should not be thought that the Substratum Theory must be committed to the truth of this claim. On the one hand, it seems to follow that if I_e somehow makes E numerically distinct from all other entities, then I_e is something in virtue of which E is numerically distinct from those other entities. But, on the other hand, it does not follow that if I_e is something in virtue of which E is numerically distinct from those other entities, then I_e somehow makes E numerically distinct from them. After all, whereas the former claim seems to suggest that I_e engages in some sort of individuative *activity*, the latter claim does not.

So what is it for I_e to be something in virtue of which E is numerically distinct from all other entities, if it is not for I_e somehow to make E numerically distinct from them via some sort of activity? While there does not seem to be anything like a universally agreed upon account regarding the matter, there does seem to be some consensus amongst Substratum Theorists and others that if I_e is something in virtue of which E is numerically distinct from all other entities, then I_e itself is not a part of those other entities. And from this it follows that I_e is numerically distinct from those other entities.

Thus far, we have seen that the substratum theory's solution to the problem of the principle of individuation is committed to the truth of the following two claims:

(1) I_e is numerically distinct from E.

(2) I_e is numerically distinct from all entities other than E.

But (1) and (2) cannot both be true at the same time. After all, if (1) and (2) are both true, it follows that I_e is not identical to anything at all, not even itself. Yet this seems absurd, given that all entities are self-identical. Thus, the Substratum Theory's solution to the problem of the principle of individuation is incoherent.

Since the Substratum Theory's solution to the problem of the principle of individuation is incoherent, an alternative solution to that problem is required. On the one hand, I grant that (2) is true. Given any entity whatsoever, x, if one claims that I_x is something in virtue of which x is numerically distinct from all entities other than x, I take it that part of what this claim means is that I_x is something that is utterly unique to x, which sets it apart from all entities other than itself. Yet it is difficult to see how I_x could play this role if it were a part of some of those other entities. But, on the other hand, since I concede the truth of (2), I must therefore reject (1) as false. Thus, according to the solution to the problem of the principle of individuation I adopt, given any entity whatsoever, x, if I_x is something in virtue of which x is numerically distinct from all entities other than x, then x and I_x are numerically identical to each other. That is to say, according to the solution to the problem I adopt, the principle of individuation for x is none other than x itself. In other words, according to my solution to the problem, x is self-individuating.[116]

Of course, at this point one might object that the notion of self-individuation is equally incoherent. But as I argue, one must postulate the existence of something that is

[116] I have recently discovered the apparently Ockham held a similar view regarding the principles of individuation for substances. See Spade (ed.) (1994). Mine, however, is a view concerning the principle of individuation for all entities, not just substances.

at least to some extent self-individuating at some point or other, if what I call the regress of individuation is to be avoided. Let x be any entity whatsoever, let y be x's principle of individuation, and let us assume that x and y are numerically distinct from each other. If y is numerically distinct from x, then there must be something in virtue of which y is distinct from x. Let us refer to this as z. Now either z is identical to x, y or something else. But if z is identical to x, then x will individuate itself from y. And if z is identical to y, then y will individuate itself from x. So z must be numerically distinct from both x and y. But if z is numerically distinct from both x and y, then there must be something in virtue of which z is distinct from them. And since this process can be repeated ad infinitum, it follows that to avoid this regress, one must postulate the existence of some self-individuating entity at some point or other. But it seems best to nip this regress in the bud by claiming that x was self-individuating all along.

On the other hand, one might also object to the claim that x has something in virtue of which it is numerically distinct from absolutely all entities other than itself. That is to say, one might object to the claim that x has some universally individuative principle of individuation. But if one already admits that x is self-individuating to some extent, it is difficult to see why one would claim that x individuates itself only from some entities but not others. Thus, if one claims that x is self-individuating to any degree at all, one should claim that there is something in virtue of which x is numerically distinct from all entities other than itself, namely, x.

Finally, one might even object to the claim that if x is numerically distinct from y, then there must be something in virtue of which x is distinct from y in the first place. But I also submit that if there is absolutely nothing in virtue of which x is numerically distinct

from y – if there is utterly no ground for x's being distinct from y, that is – then x and y will not be distinct from each other to begin with.

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