

# An Introduction to Metaphysics

JOHN W. CARROLL

*North Carolina State University*

NED MARKOSIAN

*Western Washington University*



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# 9 Properties

## 9.1 The One-Over-Many Problem

In Plato's dialogue *Meno*, Socrates says to Meno: "[T]ell me what virtue is in the universal; and do not make a singular into a plural, as the facetious say of those who break a thing, but deliver virtue to me whole and sound, and not broken into a number of pieces."<sup>1</sup> Socrates wants to know what virtue is, and his plea for it to be presented whole and sound was to make clear that he did not want descriptions of behaviors that make certain kinds of people virtuous (e.g., the virtue of a man is to order the state), and that he was not looking for a list of virtues (e.g., wisdom, humility, piety, temperance, and so on). Socrates wanted to know the common nature of all virtues. He wanted to know about *virtuehood*, about whatever it is that makes wisdom, humility, and other virtues be virtues. In *Meno*, Socrates briefly makes similar queries about color and shape. He wanted to know what makes "red" and "green" colors and what makes "round" and "oblong" shapes. In other dialogues, Socrates makes similar requests about the nature of some individual virtues. For example, in *Euthyphro*, he considers piety. What is it that makes pious things pious? In *Charmides*, the focus is temperance. What is it that makes temperate things temperate?<sup>2</sup> Questions of this sort are at the heart of *The One-Over-Many Problem*.

Plato was interested in at least two different aspects of the question, "What is virtue?" In *Meno*, he was primarily interested in the conceptual matter just described. Socrates wanted Meno to give him some illuminating characterization of virtuehood. (They consider the proposal that virtue is the power of governing and that virtue is the desire and power

<sup>1</sup> *The Dialogues of Plato*, vol. II, p. 35. Plato wrote *Meno* c. 380 BCE.

<sup>2</sup> A standard source for *Euthyphro*, *Charmides*, and all of Plato's dialogues is *The Collected Dialogues of Plato*.

of attaining good.) The same was true of Plato's discussions of color, shape, piety, and temperance. But, in *Meno* and other works, Plato was also concerned with a less conceptual and more ontological issue. Instead of an account of what it is to be a virtue, he can be understood as interested in the *entity* virtuehood, in how it exists (if it does exist). Parallel questions can be asked about the existence of temperance, piety, red, green, color, and shape. Plato was doing some ontology.

Our goal in this chapter is to introduce you to one emblematic ontological issue. That issue is the existence of *properties*. Properties are something like qualities, features, characteristics, or attributes. Wisdom and humility are as good examples as any; they are characteristics of many people. Red, green, oblong, and round are all good additional examples. Virtuehood is another one. Among the examples just mentioned, virtuehood is notable in that it is a second-order property;<sup>3</sup> it is a property of properties – it is a property of wisdom and a property of humility. Color and shape are good additional examples of second-order properties since they are properties of red and round respectively. At certain key junctures, *relations* will be an important part of our discussion. Relations are just like properties except that they characterize two or more things in relation to one another. Possession is an example of a relation; Brooks Robinson possesses sixteen Gold Gloves. Between-ness is another relation: New York City is between Boston and Philadelphia. Our ontological issue is this: Are there such things as properties and relations? If there are, what are these entities like?

## 9.2 Universals

### 9.2.1 Multiply instantiable properties and relations

When Socrates instructs Meno to tell him “what virtue is in the universal; and do not make a singular into a plural,” Socrates is presupposing

<sup>3</sup> In English, *prima facie*, ‘virtue’ is used as a name (cf., ‘Mother Teresa displays virtue’) for the property of *being virtuous*, the first-order property expressed by ‘is virtuous’ in ‘Mother Teresa is virtuous’. The English translation of Plato quoted above, in the specific passage there quoted, instead uses ‘virtue’ as a name for *virtuehood* or the property of *being a virtue*, the second-order property expressed by ‘is a virtue’ in ‘Humility is a virtue’. When it is especially important to make clear that our interest is the second-order property, and not so important that we stick to the exact wording of the quotation, we will use ‘virtuehood’ instead of ‘virtue’.

that there is something (virtuehood) that makes virtues virtues. He also adopts certain assumptions about what this thing is like. First, though Socrates sometimes refers to properties as ideas, it is clear that properties can't be mental ideas that depend for their being on human minds. Humility being a virtue obtains even if no one has ever conceived of virtue. Virtuehood must be something *objective*. Second, it is also clear that virtuehood can be instantiated by many things. There are many virtues, even though there is only one thing that makes them all virtues. Virtuehood is *multiply instantiable*. This is the characteristic that distinguishes *universals* from *particulars*. Universals can be instantiated by many particulars; particulars are not instantiated by more than one thing.<sup>4</sup>

In this section, we consider two traditional stances that treat properties as universals. Moved by the Socratic questions, a common thread in these two views is an all-at-once, very general answer to The One-Over-Many Problem. It is intended to apply whenever a property is predicated of (i.e., attributed to) some entity.

*Predication via Universals*

*a is F if and only if a instantiates F-ness,*

where 'F-ness' is understood to name a universal. Offered as an account of predication, the thought is that not only is Socrates wise because he instantiates "wise-ness" (wisdom), but also that he is bald because he instantiates "bald-ness" (baldness). This account needs to be supplemented with clauses to handle relational predications. For two-place predication, we need:

*a R b if and only if a and b (in that order) instantiate R-ing,*

where 'R-ing' stands for a two-place relation, understood to be a universal. Accordingly, Brooks possesses the 1970 Gold Glove, because Brooks and

<sup>4</sup> Arguably, there are properties that cannot be multiply instantiated. If it is a property at all, then *being Barack Obama* is an example; Barack Obama is the only thing that could ever possibly have this supposed property. Believers in universals who want to count this as a property will see it as a special case without much metaphysical significance. That it can't be multiply instantiated has nothing to do with the nature of the kind of entity it is, with the fact that it is a property. That it can't be multiply instantiated is completely dependent on what specific property it is, with it being the property of being Barack Obama and not a commonly instantiated property like the property of being hungry.

that Gold Glove (in that order) instantiate the relation of “possess-ing” (possession).<sup>5</sup>

Predication via Universals is offered as an account of predication. It does not, however, come pre-packaged with an ontological view about what universals exist or about what exactly these universals are like. In this section, we focus on two representative ontological views. The first we’ll call *Platonism*, because it is in the spirit of Plato’s ontology. The second is *Aristotelianism*, so named for its similarities with Aristotle’s views.

### 9.2.2 Platonic universals

Platonism begins with the assumption that there is a universal corresponding to every meaningful predicate. You may already have been making this assumption based on the Socratic questions discussed in 9.1. This assumption stems naturally from a very intuitive semantic theory that identifies the meaning of some natural-language terms with a corresponding universal. On this theory, wisdom is (at least) part of the meaning of the predicate ‘is wise’, temperance is part of the meaning of ‘is temperate’, and so on.

To even think of any property independently of the thing or things that have it requires a tiny bit of theoretical reasoning. It is a very straightforward matter to think of Socrates without baldness; you just think of him with a full head of hair. It is a different and much less straightforward matter to think of the baldness independent of Socrates. In this way, all properties are *abstract* in the weak sense that they are “got before the mind by an act of abstraction.”<sup>6</sup> Because of the assumption that there is a universal corresponding to every meaningful predicate, Platonic universals also turn out to be abstract in a strong sense. Consider ‘is inertial’. It is certainly a meaningful predicate, part of standard statements of Newtonian physics. So inertiality exists, even though nothing is inertial. There are less scientific examples. No unicorns exist, but the predicate ‘is a unicorn’ is meaningful. So, whatever universal ‘unicorn’ means must

<sup>5</sup> Henceforth, we will not bother to state any of the clauses required for an account of predication to handle relational predications. We leave that as an exercise for the interested reader.

<sup>6</sup> Campbell, “The Metaphysics of Abstract Particulars,” p. 478. Campbell’s paper (and several other of the works referenced in this chapter) can be found in Mellor and Oliver’s edited anthology, *Properties*.

be an uninstantiated one. Uninstantiated universals and, for the sake of a uniform ontology, all other universals must live a special sort of existence. They must exist in something like the way numbers do (assuming that numbers exist), not in space and with no beginning or end in time. Thus, in addition to being objective and multiply instantiable, Platonic universals are abstract in the sense that they are non-spatial and atemporal.

### 9.2.3 Concerns about Platonic universals

#### *Parsimony*

If the truth of a theory demands that some object exist, and that object doesn't really exist, then the theory is false. Obviously, that would be a bad feature of the theory. Less obviously, if the truth of a theory demands the existence of something that is inordinate enough to make one wonder whether it really exists, then that is not good either. (Maybe you've heard of Ockham's razor.) Some opponents of Platonism are suspicious of Platonic universals precisely because they are somewhat extraordinary. They are abstract in two ways: they are abstract in that they come before the mind by an act of abstraction and they are abstract in the sense that they are non-spatial, atemporal things. So, according to Platonism, while you might run into a pious preacher at a revival meeting, you won't see piety there (literally speaking, that is). Others go further and argue that the abstractness of Platonic universals makes them unknowable. They hardly seem to be the sort of thing that could be an object of perception. It is hard to see how they could stand in any causal connection with the rest of the world. How could we know what they are like or when they are instantiated? How could we refer to them? How could they be what some of our words mean?

#### *Generality*

Traditionally, one primary reason for believing in Platonic universals is the supposed explanatory value of the resulting account of predication. The problem is that, when coupled with Platonism, Predication via Universals faces two knock-down objections.

First, there are meaningful predicates that don't express any property. Consider the predicate 'is non-self-instantiating'. Ned is non-self-instantiating. Indeed, he is never instantiated by anything, and so

certainly he never self-instantiates. Nevertheless, is it true that Ned is non-self-instantiating if and only if Ned instantiates non-self-instantiation, as is implied by Predication via Universals? Well, it is only if the property non-self-instantiation exists. But this is one property that definitely doesn't exist because, if it did, it would be self-instantiating if and only if it were not self-instantiating, and that is a contradiction. Any proposition of the form ' $P$  if and only if not- $P$ ' is necessarily false no matter what proposition  $P$  is.<sup>7</sup>

Second, we are going to have to be careful about the instantiation relation. Consider the fact that John instantiates temperance. Remembering what Predication via Universals says about relational predications, this account tells us that John *instantiates* temperance if and only if John and temperance (in that order) *instantiate* instantiation. There lies the trouble. This account is circular. The verb 'to instantiate' is used in the statement of what is to be explained and in what is supposed to do the explaining.

So, Predication via Universals can't be fully general; it can't apply to all predications, unless one is prepared to accept contradictions as true and to endorse a circular account of the predication of instantiation. The natural response to make to these objections is to restrict the application of this account of predication. Platonists can deny that there is a property corresponding to every predicate and then restrict Predication via Universals to good effect, denying that there is an instantiation relation, denying that there is a property of non-self-instantiation, and restricting the application of the account to predications involving predicates with a corresponding universal. The Platonist can still accept that it is true that John instantiates temperance and that Ned is non-self-instantiating, but he or she should maintain that predications involving the predicate 'instantiates' and 'is non-self-instantiating' are primitive predications, ones that are not given an account. They should be taken to be brute.

This sort of revision is important to the dialectic. We were led to Predication via Universals and to Platonism by the seemingly obligatory Socratic questions about the One (virtue, color, shape ...) and the Many (virtues, colors, shapes ...). But what should we now think about those questions? Are they really obligatory? They seem just as obligatory when

<sup>7</sup> This is a well-known version of Russell's Paradox. For more on Russell's Paradox, see Irvine, "Russell's Paradox."

posed about instantiation or non-self-instantiation as they do when posed about virtue, and yet now the Platonist seems forced to say that when the questions are posed about instantiation or non-self-instantiation, they don't need answers! Once one restricts Predication via Universals in the natural way, "What is instantiation?" and "What is non-self-instantiation?" don't demand an answer beyond that predications of instantiation and non-self-instantiation are brute matters of fact. As a result, upon reflection, it is natural to start to wonder whether any of the Socratic questions really demand an illuminating answer.

#### 9.2.4 Aristotelian universals

There is a more severe way of pulling back from the full generality of Predication via Universals, a way that is in the spirit of Aristotle's ontology.<sup>8</sup> To appreciate what we have called Aristotelianism, let yourself feel the pull of Socrates's central question in *Meno*, assume there is a need to explain why virtues are virtues, and go along with Plato in thinking that the universal virtuehood is part of that explanation. But don't assume that every meaningful predicate expresses a universal. Instead, postulate only the universals needed to account for the *true* predications.

Since nothing is inertial and there are no unicorns, don't posit inertiality or unicornhood. Don't posit any uninstantiated universals. This has an advantage: we are not pushed to thinking of universals as non-spatial and atemporal. So we needn't think of there being Plato's Heaven, a separate realm of forms, containing universals that are sometimes instantiated here and there by various objects and events scattered about space and time. Rather, we can see a universal's existence as with, and only with, the things that instantiate it. Being so tied to concrete particulars allows universals to stand in causal relations. Thus, Aristotelian universals are less mysterious than Platonic universals. They are only abstract in the weak sense that all properties are. Aristotelianism is significantly more parsimonious than Platonism.

<sup>8</sup> Passages from Aristotle suggesting elements of this view include *Categories* 5, 2a34–2b6, *De Interpretatione* 7, 17a38–40, and *Metaphysics* Book VII, 13, 1038b9–12, all of which can be found in *The Basic Works of Aristotle*.

David Armstrong is responsible for a surge in the popularity of Aristotelianism. He takes the Aristotelian stance to an extreme. Yes, he denies that there are any uninstantiated properties, denies that there is a property of non-self-instantiation, and denies that there is an instantiation relation. In answering The One-Over-Many Problem, however, he doesn't even assume that there is virtue, color, shape, or wisdom. Armstrong doesn't immediately assume a corresponding universal exists even for the most ordinary predicates. "[I]t is the task of total science, conceived of as total enquiry, to determine what universals there are."<sup>9</sup> Armstrong's is an a posteriori approach. See what properties science commits us to, then worry about how to account for the many ordinary predications we commonly take as true.

### 9.2.5 Concerns about Aristotelian universals

The primary attraction of Aristotelianism is that universals are spatially and temporally embedded in our universe, not a separate world of being. Still, it retains one of the limitations of Platonism. Because of the paradoxical nature of non-self-instantiation and the threat of a circular account of instantiation, an Aristotelian is in no better position to give a fully general account of predication than is the Platonist. Furthermore, by bringing the universals back down to Earth, Aristotelian universals have a mysterious feature not had by Platonic universals. According to the Aristotelian, this electron's charge and that electron's charge are not *two* instantiations of charge; this electron's charge literally is *the very same thing as* that electron's charge, even if the two electrons are a million miles apart. It is surprising (some might say absurd) that one thing, the property charge, can simultaneously be wholly present in two places at one time.

## 9.3 No universals

### 9.3.1 Sets, tropes, and austerity

Can we get by without any universals in our ontology? Maybe. *Set Nominalists* and *Trope Nominalists* acknowledge properties but maintain that they are not universals. *Austere Nominalists* deny that there are any properties.

<sup>9</sup> Armstrong, *Nominalism and Realism*, p. xii.

### 9.3.2 Set Nominalism

Some accounts of predication minimize the differences between properties and particulars. They identify properties with a special kind of particular. The first account of this sort is:

*Predication via Sets*

*a is F if and only if a is a member of F-ness,*

where ‘F-ness’ names a set. Plato is wise because he is a member of wise-ness (wisdom), which is taken to be the set of wise things. So, wisdom is a particular and not a universal; strictly speaking, sets are not instantiated by any member or by anything else – they are not multiply instantiable. Predications of membership are typically taken to be brute.<sup>10</sup> Set Nominalists can deny that there exist any universals, instead treating every property as a special sort of set.

One nice feature of Set Nominalism is that, in virtue of their theoretical good-standing, sets and set membership somehow seem less mysterious than universals and instantiation. This is due to sets being used to great advantage by mathematicians, logicians, and others. The identity conditions of sets are also well understood: *S* and *T* are the same set if and only if *S* and *T* have exactly the same members.

Unfortunately, there is a straightforward problem with Set Nominalism. Here is how it is reported by David Lewis:

The usual objection to taking properties as sets is that different properties may happen to be coextensive. All and only the creatures with hearts are the creatures with kidneys; all and only the talking donkeys are flying pigs, since there are none of either. But the property of having a heart is different from the property of having a kidney, since there could have been an animal with a heart but no kidneys. Likewise the property of being a talking donkey is different from the property of being a flying pig.<sup>11</sup>

Why are we telling you about a theory that is subject to such devastating counterexamples? We do so because, if one is willing to expand one’s ontology in an extreme way, Set Nominalism becomes a viable theory. Indeed,

<sup>10</sup> Lewis is an exception. In *Parts of Classes*, he analyzes membership in a set in terms of the *part of* relation.

<sup>11</sup> Lewis, *On the Plurality of Worlds*, p. 51.

this was Lewis's theory. Lewis believed that much more exists than just what actually exists. For Lewis, whatever possibly exists exists. So, what about those items on our does-not-exist list from [Chapter 1](#), including Vulcan, Pegasus, and Atlantis? Lewis thought that they all belong on the does-exist list, just not on any Actually Exists list. What this expanded ontology brings are just the consequences Lewis wants. The property of having a heart is different from the property of having a kidney, because some possibly-but-not-actually existing animals have a heart and no kidneys, others have kidneys but no heart. Being a talking donkey is different from being a flying pig, because there are possible talking donkeys that are not flying pigs.

Set Nominalism has its attractions. Universals are a little strange in virtue of being multiply instantiable; our familiarity with talk of sets and the membership relation from standard mathematics makes sets seem less strange. Furthermore, the supposed abundance of sets of possibilia make them pretty well suited for being the meanings of predicates; in this regard, they are more like Platonic universals than Aristotelian universals. But these features of Set Nominalism are won only at an ontological price. Sets are not ontologically innocent; they are abstractions, and they are something that exists over and above their members. Even more daunting, the Set Nominalist has to see reality as including entities like Pegasus that, *prima facie*, only possibly exist, thereby accepting loads of material objects that we cannot perceive and that cannot stand in any causal relation to us. Besides the ontological price, we should also keep in mind that the usefulness of sets of possibilia for semantics is somewhat limited by the fact that predicates that are necessarily satisfied (e.g., 'is wise or not wise' and 'is angry or not angry') turn out to be synonymous. The same goes for predicates that necessarily are not satisfied (e.g., 'is wise and not wise' and 'is angry and not angry').

### 9.3.3 Trope Nominalism

There is another way of taking properties to be particulars. On this view, like the Aristotelian one, there are no uninstantiated properties. Unlike the Aristotelian view, this one can deny the existence of universals, taking all properties to be *tropes*, to be abstract particulars (in the weak, abstraction sense of 'abstract'). Tropes are things like Plato's wisdom and Socrates's wisdom. They are properties, but they are not multiply instantiable – they

are not universals. Plato's wisdom is not Socrates's; no matter how similar they might be, they are two things, not one.

*Predication via Tropes*

*a is F if and only if a has F-ness,*<sup>12</sup>

where 'F-ness' names a trope. Socrates is wise because he has wisdom, because a certain named trope is his. *Modest Trope Nominalism* stops there, taking the having of a trope by a particular as brute.<sup>13</sup>

Stopping there, however, stops short of incorporating some distinctive and clever features of Trope Nominalism as it is famously advanced by Donald Williams and others.<sup>14</sup> These *Ambitious Trope Nominalists* maintain that there is a special relationship that holds between two tropes that are tropes of a single thing; such properties are *compresent*. Remarkably, the *Ambitious Trope Nominalist* uses this relation to say what the single things are: each one is a set of *compresent* tropes.<sup>15</sup> Furthermore, *Ambitious Trope Nominalists* have wanted to say something similar about what the *Platonist* takes to be universals, things like wisdom (wisdom simpliciter, not Socrates's or Plato's or anyone else's). They do so in terms of a second special relation that holds between two tropes. Wisdom is the set of all wisdoms; it is the set of tropes that *match* or (wholly) resemble some wisdom trope. Whether one trope matches or is *compresent* with another is not a matter for further account; such facts are taken to be brute. Within this framework, what the *Ambitious Trope Nominalist* says about predication is:

*Predication via Sets of Tropes*

*a is F if and only if a intersects F-ness,*

where 'F-ness' names a set of matching tropes. As is standard, intersection is defined in terms of set membership. So, seen as offering a philosophical

<sup>12</sup> We use the word 'has' instead of the word 'instantiates' to help emphasize the difference between *Predication via Universals* and *Predication via Tropes*. Some *Trope Nominalists* think only universals can be instantiated.

<sup>13</sup> Ehring, in *Causation and Persistence*, and Heil, in *From an Ontological Point of View*, each adopt something like *Modest Trope Nominalism* to bolster their attempts to solve metaphysical problems.

<sup>14</sup> Williams, "On the Elements of Being: I." Also see Campbell, "The Metaphysics of Abstract Particulars."

<sup>15</sup> We are simplifying a bit by identifying non-abstract particulars with a *set* of *compresent* tropes. They might be better identified with a *mereological sum* of their *compresent* tropes. See [Chapter 8](#) for more on mereology.

account of predication, what this tells us is that Socrates is wise because Socrates, a set of compresent tropes (which includes a baldness trope and a wisdom trope among many others), shares a member with wisdom, a set of matching tropes (which includes that wisdom trope of Socrates, a wisdom trope of Plato, and lots of other wisdom tropes). What we have here is a theory that weaves together a theory of non-trope particulars with a theory of predication.

Part of the motivation for Trope Nominalism is what is seen as the extravagance of theories of universals. Trope Nominalists differ on exactly what tropes exist. Some hold that a thing's tropes include a distinct trope corresponding to each predicate the thing satisfies. Others take a stance in the spirit of Armstrong's theory of universals by holding that things have only the tropes that science tells us they have. Regardless, even Armstrong's view of universals is more extravagant in an important respect than the stingiest Trope Nominalisms. All theories of universals maintain that there are multiply instantiable properties, entities that are simultaneously instantiated by many different, spatially separated particulars. There need be no such thing according to the Trope Nominalist. In addition, Trope Nominalists find evidence of particularized properties in common sense: the bridge collapsed because of the weakness in the cable. (Discussion of apparent reference to particularized properties will be taken up in 9.5.) Sets of matching tropes might even play some role in semantic theory.

What is the downside to Trope Nominalism? Well, certain predications still will be taken as brute, be they predications of non-self-having, having, compresence, matching and/or set membership. And we still have an ontology of properties that are abstract particulars in the weak sense of 'abstract'. You might think that this minimizes the ontological extravagances, but there is an even more abstemious approach still to come.

#### 9.3.4 Austere Nominalism

The Austere Nominalist can deny that there exist properties.<sup>16</sup> There is no need for universals, tropes, or properties as sets. The Austere Nominalist

<sup>16</sup> We take the term 'Austere Nominalist' from Loux, *Metaphysics*, p. 60. Loux has published many excellent books and articles on the ontology of properties, including the edited anthology *Universals and Particulars*.

refuses to give an account of predication, rejecting The One-Over-Many as a pseudo-problem.

Given how we have set up this chapter, Austere Nominalism may seem like an extreme view. It might appear that the Austere Nominalist is denying some perfectly obvious truths, like that Socrates is wise or that wisdom is a virtue. There might be such extreme views, maybe even some motivated by ontological considerations, but Austere Nominalism need not be so radical. When defended, it is usually advanced in a level-headed, common-sense way. Here's a passage from W. V. O. Quine that is indicative of how it has been advanced:

One may admit that there are red houses, roses, and sunsets, but deny except as a popular and misleading manner of speaking, that they have anything in common ... That the houses and roses and sunsets are all of them red may be taken as ultimate and irreducible.

And a bit later:

We may say, e.g., that some dogs are white and not thereby commit ourselves to recognizing either doghood or whiteness as entities. 'Some dogs are white' says that some things that are dogs are white; and, in order that this statement be true, the things over which the bound variable 'something' ranges must include some white dogs, but need not include doghood or whiteness.<sup>17</sup>

There is no one thing (no universal, no set) that makes Plato and Socrates wise. Nor are there two things (two tropes) that do so. Plato is wise and Socrates is wise, and each of those facts is taken to be a brute fact. The Austere Nominalist is prepared to take *all* predications as primitive.

Sometimes Austere Nominalism is called *Ostrich Nominalism*, but this name was introduced (as far as we know) by Armstrong to poke fun at the view for ignoring the demand for an account of predication.<sup>18</sup> It is, however, difficult to see why there should be such needling, because, as we have seen through our consideration of non-self-instantiation and the threat of giving a partly circular account of predication, all the standard accounts of predication need to take some predications as primitive,

<sup>17</sup> From Quine, "On What There Is," pp. 29–30 and p. 32. Also see Sellars, "Grammar and Existence: A Preface to Ontology."

<sup>18</sup> Armstrong, *Nominalism and Realism*, p. 16.

including some of their own theoretical apparatus (e.g., predications of instantiation or set-membership). Everyone refuses to answer a Socratic One-Over-Many question when it is applied to some bit of predication.<sup>19</sup> What is distinctive about the Austere Nominalist is that he or she is prepared to take lots and lots of ordinary predications as basic.

#### 9.4 Explanatory success?

What opens the door for Austere Nominalism is that all the accounts of predication that we have considered leave some predications unexplained. Nevertheless, it is not easy to step through this door even once it is opened. Many philosophers resist Austere Nominalism because it appears to miss out on some illumination. *With Austere Nominalism, it looks as if no predications get explained.* At least with the other four basic theories we have considered (Platonism, Aristotelianism, Set Nominalism, and Trope Nominalism), we do get somewhere. Adopting the position that there are properties gives us *some* explanatory advantage. Doesn't it?

This assessment misrepresents the debate between the Austere Nominalists and our other ontologists. It does so in two ways. First, Austere Nominalism isn't in as bad a position as it seems. Second, the other four ontologies are not in as good a position as it seems. The first point can be made briefly. The second is a little more involved.

As for the first point, the Austere Nominalist needn't and probably won't take *all* predications as brute. He or she might hold, say, that *a* is a bachelor as *a* is a man that never married. He or she can engage in the sort of conceptual understanding that Plato attempts in his early dialogues. The Austere Nominalist can endorse that *a* is temperate if and only if *a* avoids excesses. In principle, accounts could also be given for virtue, piety, color, shape. All the Austere Nominalist refuses to do is to give a fully general account of predication, an analysis of the locution '*a* is *F*'. Some, even many, predications are open to explanation.

As for the second point, let's reconsider Set Nominalism. It can be tempting to think that it includes a circular account of predication. This

<sup>19</sup> This point is forcefully made by Devitt in "'Ostrich Nominalism' or 'Mirage Realism,'" and by Lewis in "New Work for a Theory of Universals," pp. 353–4.

can be tempting because it is easy to think of the account of predication as holding:

*Circular Predication via Sets*

$a$  is  $F$  if and only if  $a$  is a member of the set of all  $x$  such that  $x$  is  $F$ .

But that's not right. This account specifies the set of  $F$ s within the account of predication. That's blatantly circular; 'is  $F$ ' is used on both sides of the 'if and only if'. The account is supposed to be telling us what makes something  $F$  and then uses that notion in the explanation. Instead, the (genuine) Set Nominalist specifies the set of  $F$ s independently of giving his account. He or she identifies the set of  $F$ s, naming it ' $F$ -ness' and uses the name in the account. So, letting  $F$ -ness be the set of all  $x$  such that  $x$  is  $F$ , what Predication via Sets actually says is what is given in 9.3:  $a$  is  $F$  if and only if  $a$  is a member of  $F$ -ness. Thus, letting 'wisdom' name the set of wise things, Socrates is wise because he is in that set, because he is a member of wisdom. The circular variation says that Socrates is wise because Socrates is in the set that includes everything that is wise; in short, he is wise because he is wise.

An interesting question to ask is whether Predication via Sets is much of an improvement over the Circular Predication via Sets. We think this is an important question that has not received enough attention. Yes, the actual statement of Predication via Sets is not circular. It tells us that what makes something  $F$  is its standing in the membership relation to an entity. The account itself doesn't use  $F$  to specify what that entity is. That's done separately from the account. But, being non-circular is not the same as being illuminating. How big an improvement the actual account is over its circular variation depends on whether we have some (perhaps direct) independent access to the entity  $F$ -ness – the set of  $F$ s. What is needed is some way of determining what the members of that set are without first determining what things are  $F$ . For example, if the Set Nominalist could *point* to the set or *describe* it without using the predicate 'is  $F$ ', then the interest of the account would improve dramatically. If there is not such access, if our only access to the set of  $F$ s is our being told that it is the set of things that are  $F$ , then it is hard to see what understanding there is to be gained from even the non-circular statement of Predication via Sets.

Though it is not as obvious, this same issue arises with each of the accounts of predication that we have considered.

What philosophers who propose the existence of universals do is to propose a general reason which looks informative because it shifts to another level, but unfortunately is not. It merely marks time: but marking time can look very like marching if only the movements of the performers are watched, and not the ground which they profess to be covering.<sup>20</sup>

In each account, 'F' appears in both the explanandum (i.e., what is to be explained) and the explanans (i.e., what is to do the explaining). In each case, the occurrence of 'F' in the explanans is as part of a name for some entity, either a name for a Platonic universal, an Aristotelian universal, a set of possibilities, a set of tropes, or a trope. 'F' is not being used as part of the predicate 'is F'; that would make the account circular. Nevertheless, how explanatory the account is depends on whether we have some access to the named entity that is independent of our judgments of what things are F. There should be some way of determining what the named entity is and whether *a* stands in the right relation (be it instantiation or set membership) to the entity without first determining whether *a* is F. For example, if someone points to the universal F-ness or describes this universal without using the predicate 'is F', then the prospects for an informative explanation improve. If there is not this access, if our only access to the named entity is our being told that it is what makes all F things F, then nothing has been gained.

Plato thought we did have special access to the realm of forms. He thought we could know piety and temperance, without determining what things were pious and what things were temperate. According to Plato, prior to our births, our immortal souls were acquainted with the forms – piety and temperance included – and, after our births, we are able to *recollect* the forms. Needless to say, Plato's is an extreme view. One needn't be quite so metaphysically adventurous. For example, Bertrand Russell thought we know universals *by acquaintance*, by learning to abstract the F-ness that observed particular Fs have in common.<sup>21</sup> Aristotelians and Trope Nominalists are even in a position to argue that their properties can be identified ostensively (roughly, by pointing), because, arguably, Aristotelian universals and tropes can be perceived. So there may be a way to make one or more of the accounts of predication illuminating. Our point is that there is still work to be done. Regarding the explanation of

<sup>20</sup> Pears, "Universals," p. 220.

<sup>21</sup> Russell, *The Problems of Philosophy*, p. 73.

predication, the playing field between the Austere Nominalist and the others is more level than it might first have appeared.

The accounts of predication go beyond what are, strictly speaking, the associated ontological views. The cores of the ontological views are about what exists, they say what belongs on the does-exist list. For example, the central claim of Platonism is that there exist Platonic universals. Given the work that needs to be done in order for the accounts of predication to be explanatory, they are best seen as philosophical theories made possible by the associated ontology, not as the sole foundation of arguments in favor of that ontology. In a way, this is fortunate for the Platonist, the Aristotelian, the Set Nominalist, and the Trope Nominalist. It is part of the reason that all these property ontologies continue to have their supporters. As we will see in the next section, these ontologies are interesting apart from what they say about predication and the One-Over-Many. So, endorse your favorite account of predication if you have some reason to believe in the needed entities. Just be very careful if your only reason for adopting that ontology is the supposed explanatory value of the account of predication.

## 9.5 Some common-sense truths

The One-Over-Many Problem is not the only ontological issue that has pre-occupied metaphysicians interested in the question of whether properties exist. That issue is really just one example of how some philosophers found properties appealing in the service of advancing a philosophical account. In this section, we consider several common-sense truths that seem rather directly to commit us to properties.

Here are some examples:

- (1) Socrates has wisdom.
- (2) Plato and Socrates have wisdom in common.
- (3) Plato and Socrates have something in common.
- (4) Humility is a virtue.

Sentences (1)–(4) seem true. In each case, the apparent source of the commitment to properties is obvious: (1), (2), and (4) all include what appears to be a name (either ‘wisdom’ or ‘humility’) referring to some kind of property. Sentence (3) includes the quantifier ‘something’ that appears to quantify over properties.

With the possible exception of the Modest Trope Nominalist, the friends of properties considered above are in a good position to accept these sentences as true. Indeed, these examples (or ones like them) are often cited as part of an argument for the existence of properties. The Platonist will not be ashamed to admit there exist such things as wisdom and humility, and hold that wisdom at least is one property Plato and Socrates both instantiate. Friends of Aristotelian universals can take exactly the same stance – so long as they are not too stingy about the sorts of universals that exist.<sup>22</sup> The Set Nominalist with his or her ontology of possibilities is also in good shape. For the Set Nominalist like Lewis, sentence (1) is true because having wisdom is a matter of being a member of wisdom, which is the set of all possible things that are wise. Sentences (2) and (3) are made true by Socrates and Plato both being members of this set. Sentence (4) is true because humility, the set of all possible humble things, is a virtue. The Ambitious Trope Nominalist can take a stance that is similar to the Set Nominalist's: sentence (1) is true because having wisdom is a matter of intersecting wisdom, the resemblance set of wisdom tropes. Sentences (2) and (3) are made true by Socrates and Plato both intersecting this set. Sentence (4) is true because humility, the set of all humility tropes, is a virtue. Modest Trope Nominalists need to postulate something to serve as the reference of 'humility' and 'wisdom' or resort to some sort of paraphrase. (As we will see in a bit, the Austere Nominalist may have some suggestions.)

Trope Nominalists offer some other common-sense truths that seem to reveal a commitment to tropes:

(5) The weakness of the cable caused the collapse of the bridge.<sup>23</sup>

The trope theorist takes sentences like (5) at face value. The weakness in the cable of that bridge exists, and is a distinct thing from the weakness in the cable of any other bridge.

<sup>22</sup> A philosopher like Armstrong should be agnostic (or even skeptical) about whether there is a universal of humility or one of wisdom. He shouldn't assume that 'is humble' or 'is wise' are part of the formulation of *science*, which for Armstrong is the gatekeeper for what exists. To keep sentences (1)–(4) all true, such an Aristotelian will have to scramble at least a bit (i) to find something to be the reference of 'wisdom' and 'humility' and to be a value of the quantified variable in (3); or (ii) to find instead suitable paraphrases of one or more of these sentences.

<sup>23</sup> Campbell, "The Metaphysics of Abstract Particulars," p. 480.

For the Aristotelian and the Set Nominalist, the weakness in the first cable is the weakness in the other cable – there is just the one thing, either the universal weakness or the set of possible weak things. So, it is not immediately clear how the Aristotelian and the Set Nominalist can avoid the bizarre consequence that it is true that the weakness in a cable on a bridge, perhaps 5,000 miles away, caused this nearby bridge to break. The Platonist may have a way out since he or she might be willing to take the different instantiations of a universal to be different things, but this only expands the Platonist's already rich ontology to include not only abstract universals, but also more concrete instantiations of these universals. Perhaps the best move for the Aristotelian, the Platonist, and the Set Nominalist would be to paraphrase (5) as saying that it is the fact that the cable in that bridge instantiates weakness, not the weakness itself, that caused the bridge to collapse. There may, however, still be lingering worries that this paraphrase is committed to another sort of entity, a *fact*. One might also have a more specific concern about the viability of this option for the Platonist and the Set Nominalist. How could a fact about a particular *instantiating an abstract universal* or *being a member of a set of possibilities* make anything collapse?

What of the Austere Nominalist? Hoping to deny that there are any properties, the Austere Nominalist needs to say something about sentences (1)–(4) and the Trope Nominalist's favorite, sentence (5). There is an easy paraphrase for (1) and for (2):

- (1') Socrates is wise.
- (2') Socrates is wise and Plato is wise.

So far, so good. There is something similarly simple for the Austere Nominalist to say about (5):

- (5') The bridge collapsed because the cable in that bridge was weak.

Taken at face value, (5') commits us to nothing but the bridge and the cable.<sup>24</sup> So, really, it is sentences (3) and (4) that make the most immediate trouble for the Austere Nominalist.

<sup>24</sup> Some philosophers following Quine would not be satisfied with this rendering of (5) as it is not clear how (5') could be adequately represented in the symbolic language of predicate logic. The connective 'because' can't be introduced into this language except in trivializing ways. But, ultimately, Quine's insistence that there be

There is the option of denying that (3) and (4) are true. Perhaps these sentences are, strictly speaking, false. In a way, they do seem to assert exactly what the Austere Nominalist wants to deny. Sentence (3) says that there is *something* Plato and Socrates share, and sentence (4) seems to imply that a certain other thing, *humility*, exists and is a virtue. How could these things help but be anything besides some kind of property? And isn't that exactly what the Austere Nominalist says is not on the does-exist list? Remember what Quine said: "One may admit that there are red houses, roses, and sunsets, but *deny except as a popular and misleading manner of speaking, that they have anything in common*" (our emphasis). The viability of digging in one's heels by rejecting (3) and (4) depends on just how prepared one is to give up these common-sense truths.

There may not seem to be much at stake here. What trouble could we get in by denying that Socrates and Plato have something in common, so long as it is true that they are both wise? That humility is a virtue hardly seems to be a bedrock datum that should be preserved at all cost, especially given that one is not denying either that, say, Mother Theresa is humble or that she is virtuous. We think that there is much at stake here. Denying (3) and (4) should not be done without careful consideration. This is especially clear regarding sentence (3). The Austere Nominalist's trouble with (3) is that there is a quantifier that apparently ranges over properties. There are lots of other similar and very important sentences. In particular, a lot of what is said in mathematics in terms of sets and functions can be said without sets and functions if we use quantifiers like the one found in (3) instead. If it should turn out that this quantification is nominalistically harmless, then this is potentially an ontological boon for those who like austere ontologies. So though we won't get into too many details, let us spend a little time looking for possible paraphrases of (3). What we find will suggest a paraphrase of sentence (4).

One thing to notice about (3) is that it seems to follow trivially from (2'). How could Socrates and Plato both be wise and yet not have something in common? What's remarkable is that (2') is consistent with Austere Nominalism. So, (2') is consistent with Austere Nominalism though one

such a representation stems from a somewhat distant issue about our ability to use and understand natural language; it doesn't directly have to do with what (5') says exists.

of its trivial entailments is not. How can that be?<sup>25</sup> How could a sentence entailed by a sentence that doesn't entail that there exist properties entail that there exist properties? Despite appearances, maybe, just maybe, that Plato and Socrates have something in common *doesn't* do that.

The question is whether we need to see (3) as saying that there exists some entity such that Socrates has it and Plato has it. If we simply interpret the natural-language quantifier 'something' in the manner used in elementary logic classes then the answer to this question is no. But, back in [Chapter 1](#), we already had a case involving a quantification in natural language that decidedly should not be treated this way: 'The average American family has 1.81 children.' Normally, a definite description like 'The average American family' is interpreted as involving quantification as 'There exists a family, it is American, it is average and nothing else is a family, American, and average.' (The phrase 'and nothing else ...' preserves the uniqueness implication of use of the definite article 'the'.) But, as we saw in [Chapter 1](#), there is a straightforward way of avoiding ontological commitment to such a bizarre entity. The quantifiers of natural language need not get an automatic identification with the quantifiers of predicate logic. We should be open to the idea that sentences including natural-language quantifiers, even very simple ones like (3), might be open to understandings that do not bear any commitment to properties. There are various ways to proceed here but, as illustration, we will briefly discuss work by George Boolos and also work by Augustin Rayo and Stephen Yablo.<sup>26</sup>

Boolos suggests that (2) is equivalent to: 'There are some wise things such that Plato and Socrates are among them.' Then sentence (3) is equivalent to: 'There are some things such that Plato and Socrates are

<sup>25</sup> This puzzle is laid out nicely by Hofweber, in "Innocent Statements and Their Metaphysically Loaded Counterparts." Schiffer calls inferences like the one from (2') to (3) a *something-from-nothing transformation*; see pp. 61-71 of *The Things We Mean*. He takes these transformations to reflect conceptual truths – in our case the conceptual truth that, if Socrates is wise and Plato is wise, then there is a property that Socrates has and Plato has. Schiffer accepts that properties exist but holds that they have no interesting or deep nature not determined by the practices constitutive of the concept of a property.

<sup>26</sup> Boolos, "To Be Is to Be a Value of a Variable (or to Be Some Values of Some Variables)" and "Nominalistic Platonism;" Rayo and Yablo, "Nominalism through De-Nominalization."

among them.' What is interesting is that these paraphrases seem not to commit one to the existence of properties, just to things that could amount to nothing more than Socrates, Plato, and some other ordinary particulars.

Rayo and Yablo paraphrase sentence (3) differently from Boolos. They think of (3) as saying that Socrates and Plato are the same way. Even better, to avoid being sucked into thinking that there are such entities as *ways*, they can paraphrase (3) as:

(3') Socrates is somehow and Plato is likewise.

We can also give a parallel paraphrase of (2): 'Wise is somehow Socrates and Plato are.' One thing that is nice about (3') is that 'somehow' and 'likewise' don't even appear as if they are quantifying over any entity. They don't replace a name or description; they replace the word 'wise' in 'Socrates is wise' and in 'Plato is wise', respectively. There is no temptation to think that there need be any property (not a trope or set of tropes, not a universal, not a set of possibilities) for an assertion made by (3') to be true.

We have yet to try an Austere Nominalist paraphrase of sentence (4). The usual place to begin is to suggest, 'Everything humble is virtuous.' Two criticisms are often made of this idea. First, it is usually pointed out that, though humility is a virtue, not everything humble is virtuous. After all, some things have their humility outweighed by their more numerous or more serious vices with the consequence that, though they are humble, they are not virtuous. We are not sure this criticism is a good one; it may depend on a particular reading of 'virtuous' (virtuous in an all-things-considered sense) rather than on another perfectly good reading (virtuous in an in-some-manner-or-to-some-extent sense). Nevertheless, even if our suspicion is right, there is the second criticism. Consider:

(6) Red is a color.

If one is tempted to paraphrase (4) as 'Everything humble is virtuous,' one should also be tempted to paraphrase (6) as 'Everything red is colored.' So far, so good. By parity of reasoning, one should then paraphrase

(7) Red is a shape

as 'Everything red is shaped.' That's the problem. Though (4) and (6) are true, (7) is false. Its paraphrase, if it really is a good paraphrase, should be

false as well. Unfortunately, for the Austere Nominalist, it's not false. It's true; everything red is shaped.<sup>27</sup>

Taking our cue from Rayo and Yablo, here are some suggestions for better paraphrases of (4), (6), and (7):

(4') If something is humble, then it is virtuous in a humble way.

(6') If something is red, then it is colored in a red way.

(7') If something is red, then it is shaped in a red way.

Notice that the first two are clearly true and now the third is clearly false. To be shaped in a red way, red must be a manner in which the red thing is shaped. But red is never a manner in which an object is shaped. Round, square, oval, triangular, each of these could be a manner in which an object is shaped, but red couldn't. Really, the only thing not to like about (4'), (6'), and (7') is that they look as if they are ontologically committed to ways. As before, that can be fixed by recognizing that a way or a manner in which something is virtuous or colored or shaped is *somehow* it is virtuous or colored or shaped.

(4'') If something is humble, then humble is somehow it is virtuous.

(6'') If something is red, then red is somehow it is colored.

(7'') If something is red, then red is somehow it is shaped.<sup>28</sup>

Notice that humble is somehow all humble things are virtuous even if not all humble things are virtuous. Red is not somehow all red things are shaped even though red is somehow all red things are colored.<sup>29</sup>

We have gone on about how the Austere Nominalist might handle some classic cases from the ontology literature. We think this is justified, not because we think Austere Nominalism is obviously the correct theory, but *because it has the least ontology with which to work*. That is important because the paraphrases open and appealing to the Austere Nominalist

<sup>27</sup> Jackson, "Statements about Universals," p. 427.

<sup>28</sup> Arguably, all these could be put just a little bit differently without using the word 'somehow'. For example, (6'') might be rephrased as: 'If something is red, then it is redly colored.'

<sup>29</sup> Is there a problem stemming from uninstantiated properties? On this manner of paraphrase, it seems that inertiality will (incorrectly) turn out to be a shape simply because nothing is inertial. Certainly this requires further investigation, but we take some consolation that matters generally get messy whenever vacuous truths are involved. (For more on being vacuously true, see [Chapter 3](#).)

are open to and might also be appealing to other ontologists. For example, in order to resist commitment to tropes or property instantiations or facts, a Platonist about universals might adopt (5') as a paraphrase of (5). For another example, the Modest Trope Nominalist might adopt (4'') as a paraphrase of (4), apparently avoiding the need for humility, understood to be a universal or to be a set of matching tropes.

## 9.6 Ontological decisions

We have briefly described five basic ontologies: Platonism, Aristotelianism, Trope Nominalism, Set Nominalism, and Austere Nominalism. The first four nicely organize:

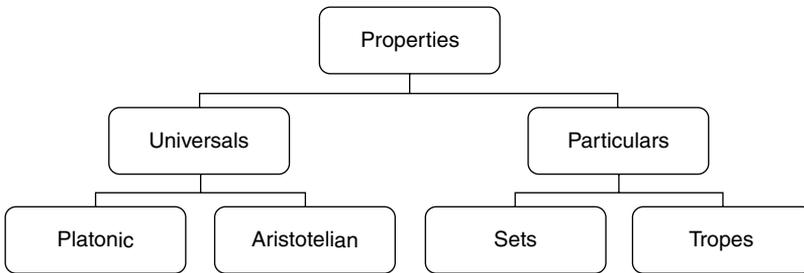


Chart 9.1: *Property ontologies*

The fifth, Austere Nominalism, in contrast to these four, denies that there are any properties. Each view has its own virtues and vices. Austere Nominalism minimizes the ontology of properties but seems bound to include many brute predications. Each of the others has fewer primitives, though they differ from each other and from Austere Nominalism on how simple and how familiar their primitives are. How much brute predication a theory has, and how mysterious or enlightening these predications are, must be weighed against how much inordinate ontology the theory takes on. And, of course, these considerations must not be weighed only relative to the role the ontology plays in a theory of predication or in the preservation of common-sense truths. They must be weighed relative to our entire corpus of knowledge.

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