

Properties

1. Introduction: Particulars cannot be in two places at once. If my cat, Precious, is in my living room, she can't at exactly the same time also be in YOUR living room!

But, **properties** aren't like that. If I have something with the property 'circular' in my living room, you CAN also have something in yours that is ALSO circular.

I can take a pizza and slice it up and put PART of it in the kitchen, PART of it in the bathroom, and so on, but the entire pizza can never be WHOLLY located in many places at once. But, properties CAN be wholly and completely located in many places at once. This is the problem of 'the one and the many'. It seems that there is just **ONE** property of circularity, but that this property is wholly present in **MANY** different objects.



Circularity is everywhere! As are properties like 'redness', 'heaviness', and so on, as well as relations such as 'taller than', 'next to', etc. But, now, consider these two items:



Are they similar in some way? It sure seems so. We can easily recognize that they are both red. Now ask: *Is there something (i.e., some THING) that they have in common?*

If no: Then it seems that they could not really be similar.

If yes: Then properties like 'redness' are THINGS.

Last time, we said that "**particulars**" are things (e.g., tables). But, intuitively, **properties are THINGS** too! Philosophers usually call them **universals**. For instance, the universal 'redness' is just that thing which the tomato and the rose above share in common.

2. Abstract Entities: But, what kind of things are properties? E.g., What is *circularity*?

The ancient Greek philosopher Plato believed that universals such as circularity existed in a sort of heavenly realm called the realm of the Forms. All actual circles are just imperfect copies or shadows of the Form, Circularity. But, somewhere out there, in a supernatural realm, there exists the PERFECT CIRCLE. The FORM of circularity. While circularity needs a physical object in order to exist in our world (for instance, one never finds circularity all by itself, but only circular THINGS—like circular tires, plates, coins, and so on), in the realm of the Forms, circularity exists immaterially, in some “abstract” way. So, really, our entire world is just contains mere shadows of the true realm of being. (See Plato’s [Allegory of the Cave](#) for a neat story about this.)

Now, Plato was probably wrong. But, before you dismiss him entirely, let’s take pause.

Let me ask you: Are there any prime numbers between 10 and 15? “Yes,” you say. How many? “Two,” you reply. “11 and 13.” But, a-ha! You have just affirmed that **numbers DO** exist! (For, how could there be two of something that doesn’t exist!?)

Not physical: And not merely the inky scratches of ‘11’ or ‘13’ on a piece of paper. No, the numbers are not merely the symbols we use to represent them (e.g., 11, eleven, xi, and so on). For, presumably, you the answer to my question would still have been “two” even if I destroyed all of the physical, inky scratches. After all, before answering, you didn’t need to CHECK first to make sure that I didn’t!

Not mental: So numbers don’t seem to be physical. But, nor are they mental. For, surely there were still two prime numbers between 10 and 15 before human beings existed. The Earth still had one Moon. Carbon atoms still had 6 electrons. And so on. Right? So, numbers don’t seem to be mental either. Yet, they do seem to exist.

Timeless, Eternal: Furthermore, their existence seems to be timeless. It is not as if the number eleven sometimes exists and sometimes does not exist. Nor does its nature change over time. It doesn’t get larger or smaller, fast or slow, happy or sad. It just IS.

Numbers, therefore, seem to be **non-physical** things that exist **independent of minds**, as **timeless** and **unchanging**. [*Boy, this sure is starting to sound a lot like Plato’s heavenly ‘Realm of the Forms’!*] We call these sorts of entities “**abstract objects**”.

To illustrate further, consider the nature of **propositions**. Compare, for instance:

- (1) The cat is in the tree.
- (2) El gato está en el árbol.
- (3) Le chat est dans l'arbre.

The visual symbols marked out in (1), (2), and (3) are clearly different. Furthermore, the auditory symbols that we use to refer to them are also different (i.e., we'd VOCALIZE them differently when reading them). Nevertheless, (1), (2), and (3) all represent the same thing. Namely, they express the same proposition. But, where is this proposition? It too seems to be an abstract thing.

Similar conclusions can be made about justice, goodness, truth, and yes... circularity.

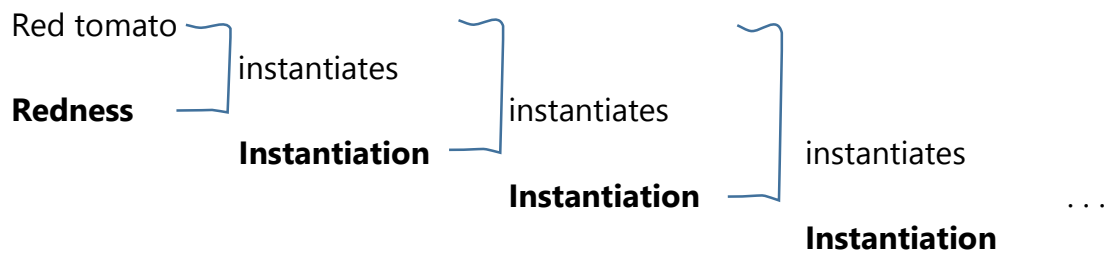
*[Some further examples: Consider **justice**. Justice seems to be SOMETHING, but it is not a concrete, material something. It is an abstract something. Justice is something that all just deeds, states, actions and so on exhibit. But, what IS justice? It does not seem to be wholly located in any one of its instances. Rather, it seems to be some abstract, unobservable thing that all of its instances share in common. As such, it too seems to be an 'abstract' entity (as opposed to 'concrete').*

*Even **relational properties** seem to be abstract things. Consider the relational property 'taller than'. Mt. Everest is taller than Mt. Fuji. But, many things can instantiate this relation. For, it is also the case that giraffes are taller than squirrels. And so on. But, surely this would still be true regardless of whether or not we were around to recognize it, or think it, or write it down, etc. And wouldn't there still be such a thing as 'taller than' if everything were exactly the same height? So, here too, the 'taller than' relation seems to require neither a physical nor a mental basis. It is an abstract thing.]*

Problem: But, how do these abstract things "GET IN" to the physical world, so to speak? How in the heck does some eternal, immaterial, unobservable universal entity like redness find its way into a tomato? How does circularity get into a basketball? Etc.

It's not enough for the two things to merely EXIST. If a ball exists, and redness exists, this by itself does not guarantee that the ball is red. There needs to be some THIRD thing, some GLUE that bonds them together.

In short, **how are particulars and properties related?** Well philosophers usually say that ripe tomatoes "**instantiate**" the universal, redness. (*For Plato, the question was, how are the concrete and the abstract realms related? His answer: Resemblance. Actual, concrete circles RESEMBLE the perfect Form of Circle.*) But 'instantiation' itself just seems like fancy term for another property (namely, a relation between the tomato and the universal, redness). (*Likewise, resemblance is ALSO a property.*) But, then, how are the particular rose and the universal, redness, related to the relation, 'instantiation'? The only possible answer: Why, they instantiate it, of course! But, now we're off on an infinite regress, like this:



The bold words represent universals. The objection is that a theory of universals cannot explain how properties “instantiate” universals, since instantiation is either itself a relational property, or else unintelligible. An infinite regress ensues. [*Now, we might be able to argue that the regress never occurs—e.g., if ‘instantiation’ is some sort of primitive feature of reality which requires no further explanation—or that the regress isn’t really such a bad thing. But, the point here is that there is at least more work to do.*]

Nominalism: Some reject the existence of universals. There is no such THING as circularity (or redness, or heaviness, etc.). There are only particulars. So, how do we explain properties on this account? One form of nominalism proposes that ‘Redness’ is nothing more than the collection of red things.

[*Note that this form of Nominalism still seems committed to abstract objects of some sort. For, if redness is a SET or COLLECTION, then SETS had better EXIST! But sets are abstract.*]

Objections: But, HOW do all of the red things find their way into the same collection? What makes ripe tomatoes, roses, and rubies get grouped together. Is there something (i.e., some THING) that ensures their membership in the same collection? The answer had better be ‘No’! For, if it is ‘yes’, then I’ll just call that THING ‘redness’.

So, how does the Nominalist answer? Resemblance. Tomatoes, roses, and rubies all RESEMBLE one another. But, what in the heck is “resemblance”? It is difficult to see how two things could “resemble” one another if they share nothing in common.

Furthermore, what if two or more objects resemble each other in more than one way? For instance, consider these objects, which are all both **red** AND **round**:



To explain why these objects are all red, it will not be enough to point out that they all resemble one another. For, then the explanation for why they are all red would be the same as the explanation for why they are all ROUND. But, that seems false.

Or, imagine that these are the only 4 things that exist. If redness JUST IS the collection of red things, and roundness JUST IS the collection of round things, then in this case it would follow that redness and roundness are the SAME THING! (This seems false.)

[If the nominalist tries to say that redness is one particular WAY in which these objects resemble, while roundness is another WAY—this sounds like an appeal to universals.]

Furthermore, on this view, if we destroyed all of the red things, then redness itself would cease to exist. There would be no such thing. This seems implausible. *[Do you agree?]*

[Reply: Perhaps redness is the collection of all actual AND POSSIBLE red objects (and similarly for round objects). So, even if redness and roundness are co-extensive in this scenario, it is POSSIBLE that they are not. Indeed, in the actual world they are not!

Rebuttal: However, consider 'three-sidedness' and 'triangularity'. These are instantiated by all and only the same objects in both the actual world AND all possible worlds. Thus, on this version of nominalism, they are the same property (which seems false).

[Reply: Bite the bullet? They ARE the same property!]

*[There are other views about properties. Some suggest that things like numbers and properties and propositions and so on DO exist—but only in the human mind. They are concepts that we invented. Call this the **Conceptualist** view.*

However, on this view, prior to the existence of intelligent beings, there was no such thing as, say, sharks or dinosaurs (since there were no minds to give these categories existence). And, even once we began to exist, if no one yet has seen something red, then nothing in the universe is red yet. If no one has yet compared the heights of two things, then giraffes are not taller than squirrels yet. And so on. Is this plausible?]

An Exercise On Redness

Let's assume that properties are THINGS. Now what? Well, your work is nowhere near complete. For, most philosophers agree that not ALL of the properties we attribute to things really exist. There are perhaps a handful of REAL or BASIC properties, and most properties are reducible to these. So, we now have the task of determining which properties exist, and which do not, and how the non-basic ones reduce to basic ones.

To illustrate, let's ask this question:

If a tree falls in the forest and no one is around to hear it, does it make a sound?

Or, rather, how about this one instead:

If a tomato ripens in the forest and no one is around to see it, is it red?

A lot of people think philosophers sit around asking stuff like this. We don't. But that doesn't mean this isn't a philosophically interesting question. Now, the answer is either yes or no. Is there any reason to answer 'No'? Perhaps. Consider this patch of color:



Consider the sensation you're having right now; that vivid, bright, red-y sensation. Maybe THAT is redness. And that sort of makes sense, right? That's what makes you say that things are red, right? But, consider: The SENSATION of redness seems to only be in YOU (the perceiver). There is nothing like that sensation out there in the WORLD.

If that seems weird, consider: Is pain in a fire? Is tickling in a feather? Clearly not.

But, then, if colors are only in US, then OBJECTS OUT THERE are NOT colored after all!

Roses are red, violets are blue.
Wait, no they're not. The red is in YOU!

Even worse, if no one ever observes the tomato ripening, it won't be red in any sense whatsoever! Most of us want to say there's a very real sense in which the tomato IS red, and it would still be red even if no one observed it. Can we make sense of this claim?

1. Redness is a wavelength? Some suggest that the redness "out there" is nothing more than a wavelength (between about 620 – 750 nanometers).

But, consider the red tomato. Where is the tomato's redness in this case? It's still not in the tomato! Nor in us! The wavelengths of light only exist AROUND the tomato. Everywhere BUT the tomato! This doesn't seem to capture our ordinary intuition that the TOMATO is red (not the air around it).

2. Redness is a surface structure: So, perhaps the tomato's redness is just a certain atomic structure of its surface. Whatever sort of surface reflects red wavelengths is red.

But, tomatoes only reflect that wavelength in certain conditions. For, if I shine various colored lights on a "red" tomato, it will reflect other wavelengths, like **GREEN** or **BLUE**.

Furthermore, it seems possible that the universe could have been such that, whenever observers viewed an object with that very same surface structure (e.g., the surface structure that ripe tomatoes have), they would have observed THIS:



On the present suggestion, this tomato is red. After all, it has the appropriate surface structure, and that's all redness IS. Do you agree?

3. Redness is a disposition to appear red: Maybe the redness of the tomato has something to do with what it DOES (to us). The tomato is "disposed to" affect us in a certain way. Namely, it is disposed to appear red (or, cause a red sensation) in perceivers. Thus, redness might be what we call a '**dispositional property**'.

But, then, are tomatoes no longer red when we turn out the lights? A tomato in a dimly lit room is NOT disposed to appear red to a perceiver (rather, it appears grey).

So, maybe redness is a disposition to appear red **under certain specified conditions** (for instance, in conditions that are well-lit, where the air or medium is not hazy, etc.).

But, then, what of humans who do not have red cones in their eyes? To them, tomatoes won't even appear red in well-lit conditions.

So, maybe redness is a disposition to appear red **to a particular type of perceiver AND under certain specified conditions.**

But now, our analysis of redness is getting very convoluted, and also seems to be too human-centric. Whereas suggestion (2) was problematic because it seemed to have NOTHING to do with how things APPEARED to perceivers, suggestion (2) seems problematic because it is now redness has EVERYTHING to do with how things appear to perceivers.

Conclusion: Redness is probably not a basic property. In other words, it doesn't really exist in the robust sense, but is rather reducible to some other (basic) properties that DO. But, figuring out exactly which properties it DOES reduce to proves to be far more difficult than one might expect. Nevertheless, despite the fact that we apparently have no idea what redness is when asked to give a more detailed explanation, most people go around oblivious confidently stating that some objects are red (or blue, or green, or yellow, and so on).