## **Origins:** Ontology

Let's turn to the subject of **ontology**, or the study of being, which asks: What is the nature of reality? Well, there are many competing views. And before we dive into the philosophical views themselves I'll first explain two main points on which these views differ from each other.

The first main point is whether reality exists *independently* of human thought. When we refer to objects we perceive in the world, are we referring to *actual entities that exist outside of us*, or are we referring to mental representations that are constructed by our mind and that can only be said to *exist in our mind*?

The second main point concerns the ontological status of **particulars** and **universals**. With particulars I mean specific *instances* or occurrences in which a property can be observed. With universals, or *unobservables*, I mean general properties that cannot be observed directly.

Let me give an example. Love is a general property that we cannot observe directly, but that is instantiated, or expressed, in behavior. So when my cat climbs on my lap and takes a nap, that could be a *particular* instance of the *universal* property 'love'.

Another example of an unobservable, *universal* property is gravity. Gravity is expressed in *particular* instances, for example when I drop my cat's food bowl and it falls to the ground.

So let's look at some different ontological views and see where they stand on the question of particulars versus universals and the question whether reality exists externally or only in the mind.

**Idealism** is a philosophical view that states that reality, as we perceive it, exists entirely in our mind. The existence of an external, physical world is irrelevant, since our perception of it is determined by our mental processes. Reality *is* in effect a mental construct.

'Gravity' and 'Love' exist, but only in our mind. The same goes for their particular occurrences. So an Idealist would say that the cat sleeping on my lap and the bowl falling to the ground are also mental constructions.

The question whether universal, unobservable entities are real, external, independent entities is therefore less relevant for Idealism because both particulars and universals are considered to exist; they're just both mental representations.

Idealism can be contrasted with **materialism.** Materialism is a position that accepts an external world independent of our mind. Materialism also states that everything in this independent physical reality consists entirely of matter.



This means that everything is a result of the interaction of physical stuff, including our consciousness, feelings and thoughts. These are all byproducts of our brain interacting with the physical world. The exact opposite of idealism, it's material versus mental! Materialism is only about what stuff is made of. Like idealism, it's not strongly associated with a view on the distinction between universals and particulars.

**Realism** is a different position. Just like materialists, realists maintain that external reality exists, independent of human thought. But realists also maintain that universals like Love and Gravity are 'real'. In what form these exist depends on your flavor of realism.

**Platonic realism** refers to Plato's position that universals like Gravity and Love really exist independently from our observation, but on a separate, abstract plane.

**Scientific realism** is more moderate and states that it's possible to make consistently supported claims using universals in statements about observable phenomena.

In scientific realism, universals like Love and gravity are therefore given the same ontological status as observable particulars. Unobservables are assumed to exist, since they're useful and often even necessary to formulate successful scientific claims.

Finally we have **nominalism.** This view opposes realism as far as universals are concerned; it accepts reality as independent of human thought but denies the existence of universals.

In nominalism there is no such thing as Gravity or Love; there are only falling objects and cats that frequently sit in your lap purring. According to nominalists, we just use the terms Gravity and Love because they help us to make sense of the world, but these universals don't actually exist.

SOLID SCIENCE: RESEARCH METHODS BY ANNEMARIE ZAND SCHOLTEN