

PHIL 420: Metaphysics

Handout 7

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E. J. Lowe: *The Four-Category Ontology* Chapters 1, 2 & 6

* Metaphysics and Science:

___ Metaphysics should not be in the business of dictating to empirical scientists precisely how they should categorize the theoretical entities whose existence they postulate. Metaphysics supplies the categories, but how best to apply them in the construction of specific scientific theories is a matter best left to the theorists themselves.

§ Preliminary: What is Ontology?

1. Metaphysics should be placed at the heart of philosophy, while ontology (the science of being) should be placed at the heart of metaphysics.
2. Reality is one and truth is indivisible. Each special science aims at truth, seeking to portray accurately some part of reality. But the various portrayals of different parts of reality must, if they are all to be true, fit together to make a portrait which can be true of reality as a whole. The task of rendering mutually consistent the various partial portraits belongs to ontology – the overarching science of being.
3. Ontology should be divided into two parts – one which is wholly *a priori* and another which admits empirical elements. The *a priori* part is devoted to exploring the realm of metaphysical possibility, seeking to establish what kinds of things could exist and, more importantly, *co-exist* to make up a single possible world. The empirically conditioned part seeks to establish, on the basis of empirical science and informed by our most successful scientific theories, what kinds of things do exist in this actual world.
4. The empirical part of ontology depends on the *a priori* part of ontology: We are in no position to be able to judge what kinds of things actually *do* exist, unless we can effectively determine what kinds of things *could* exist.
5. Ontological knowledge – not only our knowledge of what actually does exist, but also our knowledge of what could exist – is *fallible*.

§ Ontological Categories

___ These are categories of things, not, in Kantian style, categories of thought.

1. Ontological categories are hierarchically organized.
2. Ontological categories are individuated by the distinctive existence and/or identity conditions of their members.
3. Ontological categories are categories of being, but they themselves are not *beings*.
4. The top-most ontological category is that of *entity* or *being*, and at the second-highest level or categorization all entities are divisible into either *universals* or *particulars*.

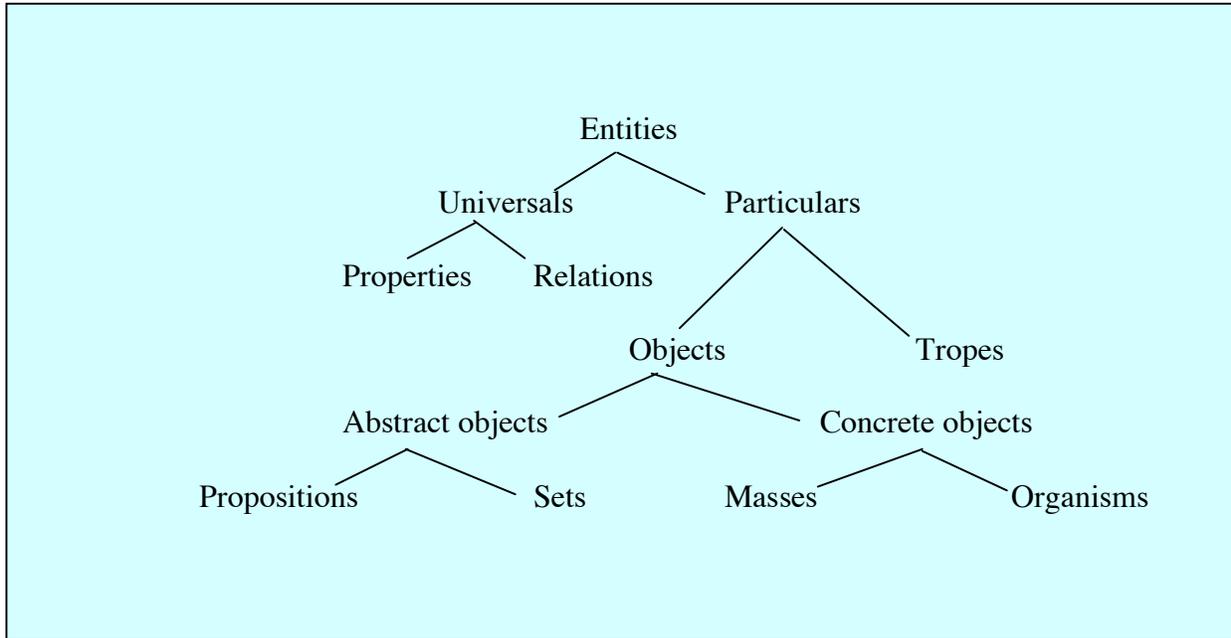


Figure 1.1 A fragment of the hierarchy of categories

§ States of Affairs and the Truthmaker Principle

[The Truthmaker Principle]:

___ The principle that any contingently true proposition or statement must be *made* true by the existence of something appropriate in reality.

* The truthmaker for a contingently true predicative proposition is a *fact* or a *state of affairs*. E.g., the truthmaker for ‘Mars is red’ is *Mars’ being red* (a state of affairs).

* States of affairs are constituted by objects and universals, in the sense that these entities are the ultimate constituents of states of affairs. Objects and universals can only exist in combination with one another as constituents of states of affairs.

§ The Four-Category Ontology

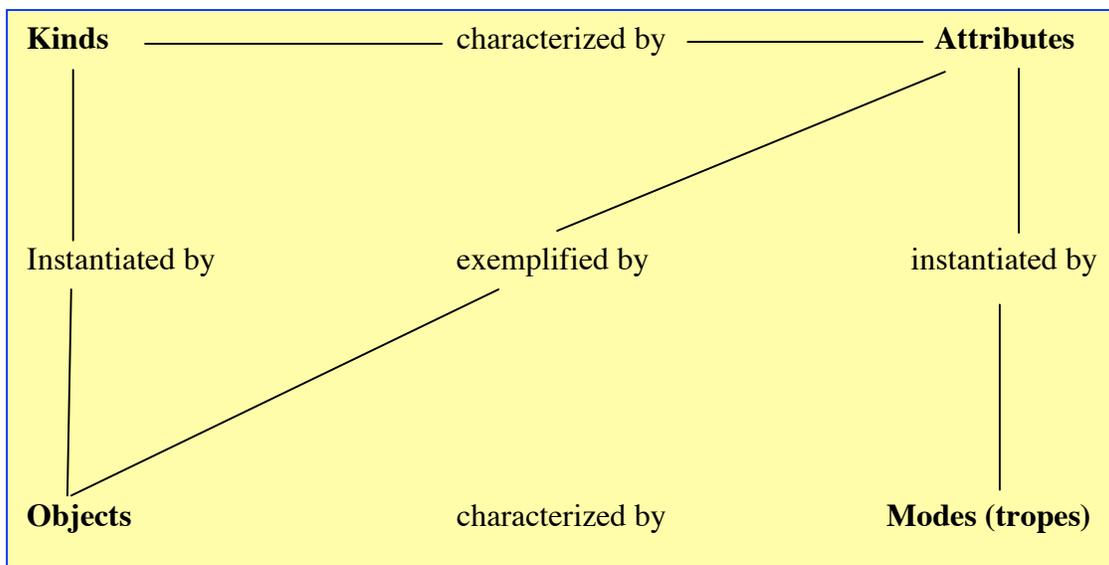
We need to include properties both as universals and as particulars (tropes) in our ontology. It seems that only particulars can participate in causal relationships and that an object participates in such relationships in different ways according to its different properties.

___ perception itself involves a causal relationship between the perceiver and the object perceived and we perceive an object by perceiving at least some of its properties – we perceive, for instance, a flower’s color and smell. But this seems to require that what we thus perceive are items that are unique to the object in question – *this* flower’s redness

and sweetness, as opposed to a universal redness and sweetness that are also exemplified by other exactly resembling flowers.

The Four Categories: (all fundamental and indispensable)

- (1) the category of *attributes* (kinds of attributes, denoted by adjectival general terms, e.g., red, round, etc., in the traditional terminology: universals)
- (2) the category of *modes* (particular attributes of the individual object (in the traditional terminology: tropes)
- (3) the category of *kinds of objects* (denoted by sortal general terms, e.g., planet, flower, etc.)
- (4) the category of *objects* (individual objects, in the traditional terminology: particulars)



Individual objects are particular instances of kinds, while the modes of individual objects are particular instances of properties.

§ Some Terminology

[instantiation]: being a particular instance of (e.g. a particular tiger and the kind *tiger*; a particular trope of redness and the property *redness*)

[characterization]: being a feature of; a relation between property or relation and substantial entities (e.g. a particular redness characterizes a particular object; the property redness characterizes a certain kind such as [red] tomato)

[exemplification]: being characterized by a mode of a universal property (or having a token or a trope of the property); a relation between a particular object and a universal property (e.g. an individual ripe tomato exemplifies the property *redness*)

* There are no *uninstantiated* universals, and particulars enjoy a kind of ontological priority over universals – just as Aristotle believed.

§ Advantages of the Four-Category Ontology

1. [analysis of laws of nature] It provides a uniquely satisfactory metaphysical foundation for natural science. Under this picture, natural laws involve not just universal properties/relations, but also kinds (of objects). Laws only determine the tendencies of individual substances, not their *actual* behavior, which has a multiplicity of determinants, including the actual behavior of many other individual substances.

Compare: Law of nature – “Planets move in elliptical orbits”

Armstrong: This law consists in the fact that a second-order relation of necessitation obtains between the first-order properties of being a planet and moving in an elliptical orbit.

Lowe: This law consists in the fact that the property of moving in an elliptical orbit *characterizes* the kind *planet*. [There is no need for the second-order relation ‘necessitation’.]

2. [analysis of dispositions] It can account for the distinction between dispositional and occurrent (or ‘categorical’) states of objects – between, for example, an object’s being fusible and its actually melting.

Lowe: An object possesses a *disposition to F* just in case it instantiates a **kind** which is characterized by the property of being *F*.

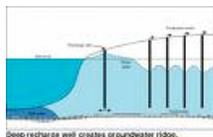
An object is *occurrently F* just in case it possesses a **mode** which is an instance of the property of being *F* (a mode of the universal *F*-ness).

e.g. Sodium chloride (salt) is water-soluble.



sodium chloride

dispositional



salt water

Occurrent

An object *O* can exemplify an attribute *A* in either of two ways. *O* may instantiate a kind *K* which is characterized by *A*, in which case *O* exemplifies *A* *dispositionally*; or, *O* may

be characterized by a mode *M* which instantiates *A*, in which case *O* exemplifies *A* *occurently*.

3. [trope individuation] It can explain what ties together the particular properties (the modes) of an object. An object's modes are simply 'particular ways it is': they are characteristics, or features, or aspects of the object, rather than constituents of it. (It is precisely because a mode is a particular way this or that particular object is, that modes cannot "float free" or "migrate" from one object to another.)
4. [analysis of universals] It can also explain how universal properties are tied together with a *kind* of objects – they are simply 'ways' the kind of objects are.
5. [property perception] It can explain property-perception. We can perceive some of the properties of individual substances, but perception is necessarily of particulars – perception necessarily involves a causal relation between the perceiver and what is perceived. Under this theory, we can now say that what is perceived is an individual substance's *exemplification* of some universals (properties).
6. [Conclusion: the four-category ontology and science]: So long as the empirical science invokes laws for explanatory purposes and appeal to perception for empirical evidence, the four-category will adequately serve as a metaphysical framework for the scientific enterprise.

§ Properties, Modes and Universals (Chapter 6)

Predicates → properties?

On the one hand, we cannot too lightly assume that every meaningful predicate denotes a property; on the other hand, there is an intimate connection between predicates and properties because our canonical ways of attempting to refer to properties make use of predicates.

*** If we are to answer the questions, 'What are properties?' and 'Do they exist?', we need to provide acceptable accounts of both the *existence conditions* and the *identity conditions* of properties.**

___ We need to be able to explain satisfactorily

- (i) what it is, quite generally, for there to *be* such a property as the property of being *F* or *F-ness*, and
- (ii) what it is, quite generally, for the property of being *F* or *F-ness*, to be identical with the property of being *G* or *G-ness*, on the assumption that these properties do indeed exist.

§ Modes vs. Tropes

* Trope theorists typically maintain that what we are apt to call ‘objects’ are no more, in reality, than ‘bundles’ of *compresent* tropes. In contrast, modes are particular ways objects are, and as such are ontologically dependent upon objects in a much stronger than any trope can be ontologically dependent upon other tropes in a bundle of *compresent* tropes.

* Particular properties are no more (and no less) than *features* or *aspects* of particular objects, which may be selectively attended to through a mental process of abstraction when we perceive or think of particular objects, but which have no being independently of those objects.

* A universal could have been *exemplified* by a different object, but the particular mode (trope) could not have been possessed by any other object whatever, because its being *this* object’s property is partly what makes it the particular property that it is.

§ Review Questions for Lowe

1. Explain Lowe’s four-category ontology in detail, and explain how this theory differs from Armstrong’s and Mellor’s theories. What does Lowe claim to be the advantages of his four-category ontology? Do you agree with him?
2. What are ‘instantiation’, ‘characterization’ and ‘exemplification’ according to Lowe? Use his four-category ontology to explain these relations.
3. In order to answer such questions: ‘What are properties?’ and ‘Do they exist?’, which two sets of conditions must we give account of according to Lowe? Suggest your own formulation of these two sets of conditions.

* **Mid-term exam next week. Bring a large blue book to the exam.**