

Lecture 1: **Primary and Secondary Qualities**

Michael Ayers, 'Primary and Secondary Qualities in Locke's Essay' in Lawrence Nolan, ed., *Primary and Secondary Qualities: The Historical and Ongoing Debate* (Oxford: OUP, 2011), pp. 136-157.

Attributes, qualities and properties

The term 'quality' is often used interchangeably with 'property'. Both are used simply to talk about *a way of being*, e.g. when an emerald is green we speak of this greenness as a quality or property that the stone instantiates, and when an emerald is precious we speak of this preciousness as a quality or property that it instantiates.

However, this might overlook a relevant distinction. Some urge we should distinguish qualities and properties (e.g. Johnston 2007: 262). Properties are *conditions* or *states* of objects whereas qualities are '*abstract stuffs*' that objects have.

One argument here is that qualities come in degree while the former don't. For example, *being wise* and *wisdom*. Being wise does not come in degree: you cannot have more or less of being wise. But you can be more or less wise (e.g. Plato has more wisdom than Thales, but both are wise). Jerrold Levinson proposes to use the term 'attribute' to cover both properties and qualities ('Why there are no tropes', 2006).

What are the sensible qualities?

Some qualities, such as redness or roundness, are obviously sensible. Some qualities, such as wisdom or virtuousness, are not obviously sensible. So we might ask: *How do we define the difference between sensible and non-sensible qualities?*

One option is to refuse to answer this question and to stick to drawing up a list of paradigm cases of sensible qualities. But it seems possible to construct a definition of the difference as well.

Start with the idea of a *qualitative duplicate*: x is a qualitative duplicate of y iff there is no quality x has that y has not, and there is no quality y has that x has not. Qualitative duplicates can still differ in respect of their non-qualitative attributes (e.g. they may have different location, or one may have been born earlier).

But instead of absolute indiscernibility, we may focus on relative indiscernibility. In particular, we may consider indiscernibility by the senses. This gives us the notion of a *sensory duplicate*: two items are sensory duplicates iff they cannot be told apart by human sense perception.

Sensory duplicate: x is a sensory duplicate of y iff x and y are sensorily indiscernible

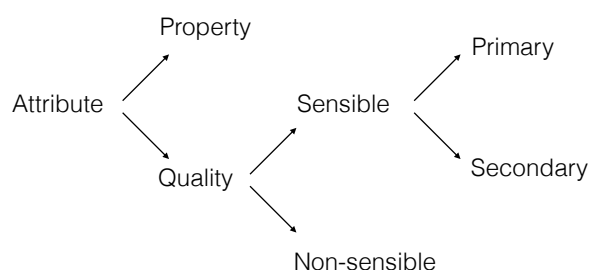
All qualitative duplicates are sensory duplicates, but not all sensory duplicates are qualitative ones. For example, a fake bank note lacks value (a quality), but cannot be distinguished perceptually from a valuable £10 note.

The notion of a sensory duplicate allows us to define what a sensible quality is:

Sensible quality: x is a sensible quality iff it x (i) a quality that (ii) is necessarily shared by all of x's sensory duplicates

Primary and secondary qualities

Sensory duplicates will share in both primary and secondary qualities. The distinction between primary and secondary qualities is familiar in philosophy. But what exactly is the difference?



The primary/secondary quality distinction is both crucial and remains elusive. Mark Johnston:

the very distinction between primary and secondary qualities has itself the dubious distinction of being better understood in extension rather than intension. Most of us can generate two lists under the two headings, but the principles by which the lists are generated are controversial, even obscure. ('How to speak of the colors?', 1992)

A metaphysical distinction

One suggestion: draw the distinction at the level of metaphysics. The primary qualities are the categorical or objective ones, whereas the secondary qualities are dispositional or subjective ones.

An immediate problem here is that even if it is true, the metaphysical distinction is not informative. We lack an obvious way of telling whether redness, say, is dispositional (or subjective) and not categorical (or objective). When you look at an apple you can tell that it's red and round, but you can't tell which of these qualities is dispositional and which categorical.

Argument from multiple access

However, there are arguments available that construct more sophisticated observational tests. Each of these identifies a broadly empirical way in which a distinction within the group of sensible qualities manifests itself. Can we really observe the difference?

One argument is that some sensible qualities can be perceived by only one sense, whereas other sensible qualities can be perceived by multiple senses. There are at least two problems with this argument. First of all, it is not clear what follows if it were true. Second, it does not seem to be obviously true: (i) a loud sound can be felt; you can smell and taste the sourness of a beer, and (ii) some classic primary qualities, i.e. solidity, can perhaps only be felt; it is not obvious that visual shape and tactile shape are in fact the same quality (cf. Molyneux's problem).

Argument from microscopes

Another familiar argument is the argument from microscopes. Locke reports looking at a droplet of blood: "Blood to the naked eye appears all red; but by a good microscope, wherein its lesser parts appear, shows only some few globules of red, swimming in a pellucid liquor." (*Essay* II:23.11). It seems that the red colour blood appears to have vanishes when we look at it through a microscope. There are two ways of understanding this.

One could conclude that, because the microscope reveals the true nature of the blood, and the redness is not part of it, the redness is not part of the blood at all. It must have been in the mind. Locke seems to take this line when he writes:

Had we senses acute enough to discern the minute particles of bodies, and the real constitution on which their sensible qualities depend, I doubt not but they would produce quite different ideas in us: and that which is now the yellow colour of gold, would then disappear, and instead of it we should see an admirable texture of parts, of a certain size and figure.

But why should we think that the microscope reveals the true nature of things? How do we decide which perspective on the world is the one that shows things as they are?

One need not make this assumption to use the argument from microscopes. All we need is that there is a conflict between how things appear to the naked eye and how they appear through a microscope (see Burnyeat, 'Conflicting appearances' 1981). In its most basic form, all such 'paradoxes of conflicting appearances' consist of three jointly inconsistent claims (see Kalderon, 'Color pluralism', 2007):

1. *Variation*: x appears F and x appears G
2. *Veridicality*: The F appearance and the G appearance are veridical
3. *Incompatibility*: Nothing is both F and G

Turn to your microscope. You see that the blood is red to the naked eye and not red when looked at through the microscope (1). We have no reason to doubt our observation in either case (2). Yet something cannot both be red and not red (3). So what should we give up? You might think (with Berkeley) that you are not seeing the same thing in both situations: in each case it is only your ideas ('sense data') that you are aware of. So the naked-eye idea is red, the through-the-microscope idea is not red. This resolves the conflict, yet it makes the qualities observed mind-dependent.