



V71LAR: Locke, Appearance and Reality

TOPIC 3: PRIMARY AND SECONDARY
QUALITIES, continued...

Recap

Are post-boxes red?

No

Yes

There is nothing in post-boxes themselves that resembles our perception of redness (i.e. a quality extending across the surface of post-boxes that is characterised by a distinctive hue)

Post-boxes do possess the power to create (in normal observers in normal conditions) perceptual states with the content: *red-post-box*.

Recap

Are post-boxes cylindrical?

Yes

Yes

There is something in post-boxes themselves that resembles our perception of being cylindrical (i.e. Their cylindrical shape)

Post-boxes do possess the power to create (in normal observers in normal conditions) perceptual states with the content: *cylindrical-post-box*.

1. Locke's Scientific Realism (*Essay II.viii*)

- Primary Qualities:
 - 'solidity, extension, figure, and mobility' (§9)
 - ...plus 'bulk, texture' (§10)
 - ...and 'situation' (§23).
- Features of primary qualities:
 - Inseparable from body (§9)
 - Those which our corresponding ideas resemble (§15). (See Alexander p.75 for doubts about a literal interpretation of 'resemblance').
 - Those which 'are really in them, whether our senses perceive them or no' (§17)

1. Locke's Scientific Realism (*Essay II.viii*), ctd.

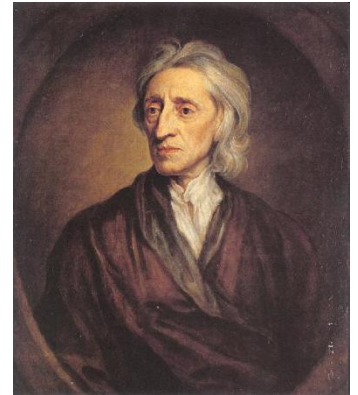
- Secondary Qualities: 'colours, sounds, tastes' (§10) plus 'smells' (§14) and 'heat', 'coldness' (§17).
- Features of secondary qualities
 - (A) '...nothing but powers to produce sensations in us' (§10)
 - (B) The ideas produced by such qualities do not resemble their causes: 'There is nothing like our ideas existing in the bodies themselves' (§15)
 - (C) Without any ideas of them they do not exist and are reduced to their causes i.e. their primary qualities: 'But heat, light, whiteness and coldness are no more really in [objects] than sickness or pain is in manna' (§17-18).

1. Locke's Scientific Realism (*Essay II.viii*), ctd.

- Problem interpreting Locke: There seems to be a tension between (A) and (C). According to (A) objects possess secondary qualities even when unperceived (they retain their powers). According to (C) they do not. So are objects coloured or not?
- Berkeley(?): Emphasise (C). Secondary qualities are not in objects at all, they are 'in the mind'. So in (A), put the emphasis on the word 'nothing'. Objects are not coloured, in any sense.
- Alexander: (C) claims only that the *ideas* of secondary qualities do not persist when unperceived (see also §21) . The qualities themselves do persist (as powers). This makes sense of Locke's strange claim that objects have no colour in the dark (§17). What he means is that they produce no *ideas* of colours in the dark.
- Note, however we interpret Locke, he is *at least* committed to claim (B), namely that: "There is nothing like our ideas [of secondary qualities] existing in the bodies themselves" (§15). So why accept this claim?...

2. Locke's 'arguments' for scientific realism (a) Separability (II.viii.9)

"[Primary qualities] are utterly inseparable from the body, in what estate soever it be; such as in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as sense constantly finds in every particle of matter, which has bulk enough to be perceived, and the mind finds inseparable from every particle of matter."



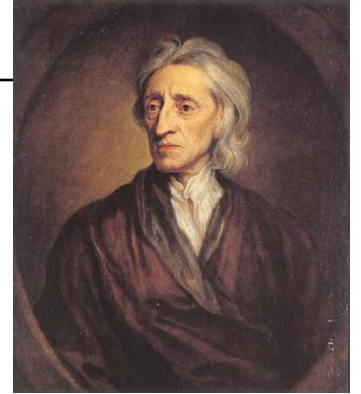
2. Locke's 'arguments' for scientific realism (a) Separability (II.viii.9), ctd.

- Berkeley's reply (*Principles* §10):

"But I desire anyone to reflect and try whether he can, by any abstraction of thought, *conceive* the extension and motion without all other sensible qualities. For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moving, but I must withal give it some colour or other sensible quality."



2. Locke's 'arguments' for scientific realism (b) Variability (II.viii.21)



"*Ideas* being thus distinguished and understood, we may be able to give an account, how the same water, at the same time, may produce the idea of cold by one hand, and of heat by the other: whereas it is impossible, that the same water, if those *ideas* were really in it, should at the same time be both hot and cold."

See also the example of the effect of fire at different distances at II.viii.16.

2. Locke's 'arguments' for scientific realism (b) Variability (II.viii.21), ctd.

- Berkeley's reply (*Principles* §14-15):

"Now, why may we not argue that figure and extension are not patterns or resemblances of qualities existing in Matter, because to the same eye at different stations, or eyes of a different texture at the same station, they appear various, and cannot therefore by images of anything settled or determinate without the mind?"

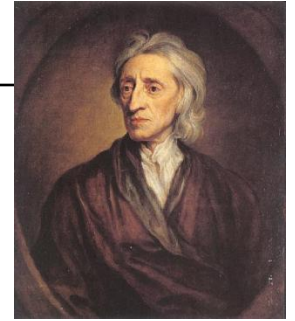


Digression: Another Route to Berkeley's Phenomenalism...



- “In short, let anyone consider those arguments thought manifestly to provide that colours and taste exist only in the mind, and he shall find they may with equal force be brought to prove the same thing of extension, figure and motion.”
(Principles §15)
- NB. This relies on (i) a particular interpretation of Locke on secondary qualities (ii) the extension of Locke's ‘arguments’.

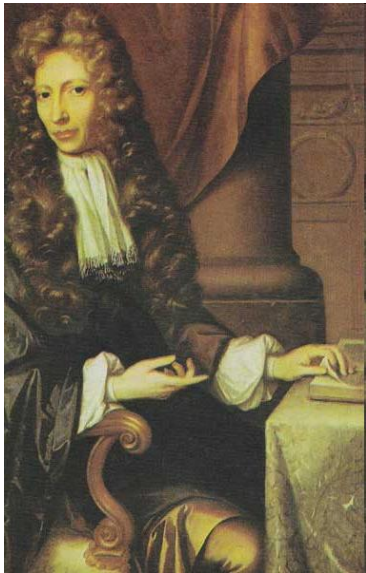
2. Locke's 'arguments' for scientific realism (c) Pounding (II.viii.20)



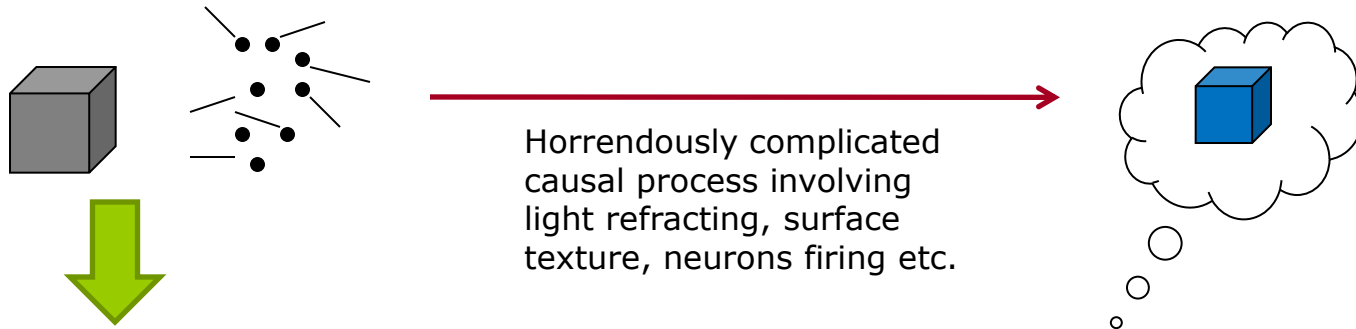
- “Pound an almond, and the clear white *color* will be altered into a dirty one, and the sweet *taste* into an oily one. What real alteration can the beating of the pestle make in any body, but an alteration of the *texture* of it?”
- Problem: Why assume that pestle is *purely* a size and shape changing device? (see Alexander p.72).

3. Locke and Empirical Science

- Alexander argues that Locke is *not* attempting to argue for the distinction between primary and secondary qualities *a priori* (by philosophy), or by reflection on our sense-experience.
- Rather, Locke is merely elucidating a distinction that is motivated *empirically*, i.e. by considering what is the best (simplest) explanation of observed phenomenon. (See also Dancy pp.148-9).
- More particularly, it is motivated by Boyle's corpuscularism (or 'the mechanical philosophy'): the view that all observed phenomena can be explained in terms of the mechanical interaction of 'corpuscles' that possess only the primary qualities of shape, size and motion/rest.



3. Locke and Empirical Science, ctd.



Q. What qualities do we need to suppose are possessed by real objects, and the insensible particles whereby real objects are known to us, in order to explain all that we observe?

- The answer given by Corpuscularism: Only shape, arrangement, size and motion/rest. I.e. Only primary qualities.
- So the real motivation for saying that only primary qualities are 'really in' objects is the empirical claim that only primary qualities (of real objects and insensible particles) are need to *explain* all that we observe.

3. Locke and Empirical Science, ctd.

- The explanatory difference:
- **“Why does this object appear square?”**
- Answer: In part because it *is* square.
- **“Why does the object appear blue?”**
- Answer: Because it has a certain surface texture which absorbs certain wavelenghts of light and reflects others, and these bits of light travel to the retinas etc. etc. {= A hugely complex explanatory story, but one *that will never mention blueness.*}

4. Reassessing Locke's 'arguments'

- Separability Argument:
- Berkeley argues that we cannot *conceive* an object without colour.
- He may be right that we cannot *imagine* an object without colour. But we can still *explain* all our colour perceptions *without mentioning colour-as-perceived*. In that sense (perhaps it is a broad sense) we can conceive of objects without colours.

4. Reassessing Locke's 'arguments', ctd.

- Variability Argument: Locke was aware that perceptions of primary qualities can vary as much as perceptions of secondary qualities (see, for example II.ix.8).
- His point is just that:
 - (a) Whenever there is variable perception we need to explain the differences in perception (since water cannot be both hot and cold, and a tower cannot be both round and square).
 - (b) The best way to do this is to give an explanation that mentions only the primary properties of objects and insensible particles. I.e. Corpuscularism.
- I.e. He is *not* saying that *variability in perception* entails that *properties are not really in objects*.
- He is saying that *variability in perception* needs to be explained AND it can best be explained without postulating anything more than primary qualities.
- See Alexander p.74.

5. Criticisms of the Distinction

- How can an empiricist, like Locke, justifiably claim that insensible corpuscles have some properties (shape, size, motion) but not others (e.g. colour-as-perceived, taste-as-perceived)?
- Reply: Abduction.

5. Criticisms of the Distinction, ctd.

- Berkeley (§8): "...an idea can be like nothing but an idea"
- I.e. It does not make sense to talk, as Locke does, of some perceptions of qualities *resembling* those qualities. E.g. The perception of something which is six foot tall is not six foot feet tall (or extended in any way).
- Reply (Alexander p.75): Talk of resemblance here is Locke groping for something better.
- The better alternative is to say that some of our perceptions are accurate representations of things in the world, others are not.



Key points for this lecture

- Locke claims that colours-as-perceived (etc.) don't really exist in objects (although some related powers might do).
- Standardly, Locke's points about separability and variability are taken to be arguments in favour of this claim.
- Alexander argues that this gets things the wrong way round. The claim is motivated by the (empirically supported) hypothesis of corpuscularism.
- In *Essay* II.viii, Locke is simply tracing the consequences of this 'natural philosophy', not providing philosophical arguments. If so, many of Berkeley's criticisms of Locke are misguided.

Reading and references

- Lowe E.J., *Routledge Philosophy Guidebook to Locke on Human Understanding* (Routledge 1995). Chapter 3, pp.47-59.
- Locke J., *Essay Concerning Human Understanding* abridged and edited by K. Winkler (Hackett 1996). Book II, chapter viii.
- Berkeley G., *Principles of Human Knowledge* sections 8-15.
- Alexander, P. 'Boyle and Locke on Primary and Secondary Qualities' in I.C. Tipton (ed.) *Locke on Human Understanding* (OUP 1977). Reprinted from the journal *Ratio* 16 (1974), pp.51-67.
- J. Dancy *An Introduction to Contemporary Epistemology* (Blackwell 1985), chapters 10 [This was part of the reading for the previous topic]
- See Module Guide for full reading list.

Questions?

- neil.sinclair@nottingham.ac.uk
- Tel: 0115 95 13428
- **Office hours:** Thursdays and Fridays 12-1 (room C8a, top floor, Trent building).
- Use WebCT discussion board!