Philosophy 203
History of Modern Western Philosophy

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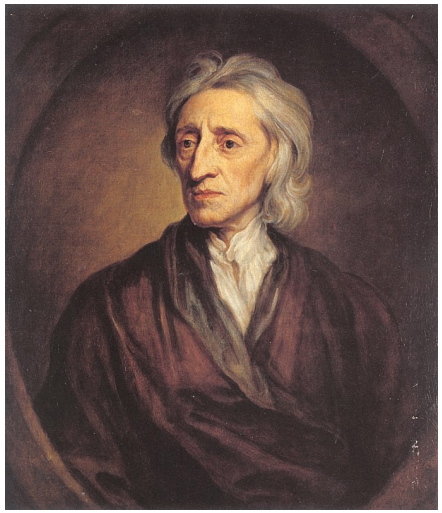


Class 15 - Locke
Review of Books I and II
Abstract Ideas
Nominalism

Four Central Topics in Locke's Work

1. Arguments against innate ideas
2. The primary/secondary distinction
3. An account of personal identity, including Locke's approach to the mind/body problem
4. Locke's philosophy of language, including the doctrine of abstract ideas

Sensation and Reflection

Two Tools

1. Sensation, and any ideas which can be attributed to our sense experience

2. Psychological capacities of our minds, including memory and the ability to reflect on our ideas.
   - Contemplation
   - Memory
   - Discerning
   - Comparison
   - Composition
   - Abstraction

Descartes Against the Senses

- Aristotle had taken sensory qualities to be properties of external objects.
  - The redness and sweetness of an apple are real properties of the apple itself.
  - Our senses are attuned to the external environment.
  - Color vision occurs when a person's eyes are changed to be like the color of an external object.
- Descartes presented (at least) three considerations which weighed against the veridicality of sense experience:
  1. The illusion and dream doubts;
  2. The wax argument; and
  3. The rejection of the Resemblance Hypothesis on the basis of the example of the sun.
- The moral of the illusion argument is merely to take care to use one's senses in the best way possible.
  - We need not dismiss all of our sense evidence on the basis of illusion.
- The dream doubt encourages a mere skepticism.
  - Put skepticism aside.

Appearance, Reality, and the Wax

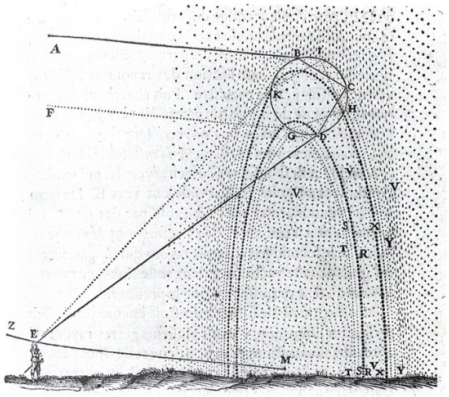
- Physical objects can have contradictory sense properties.
  - The wax (like all material objects) is an extended body which can take various manifestations.
  - The same object may have many different appearances.
  - We should identity objects with none of their particular sensory qualities.
- The appearance of an object is distinct from its real qualities.
- Which qualities are real, and which are mere appearances?
  - The primary/secondary distinction

Primary Qualities Before Locke

- Descartes believed that the only real property of physical objects was their extension.
  - "The only principles which I accept, or require, in physics are those of geometry and pure mathematics; these principles explain all natural phenomena, and enable us to provide quite certain demonstrations regarding them" (Descartes, *Principles of Philosophy* II.64, AT VIIIA.78)
  - Imagination is not capable of representing true extension.
  - We use pure thought.
- Boyle and Galileo
  - size, shape, mass, motion, and number
  - Again, mathematically-describable properties
- The expansion of the list of real properties from Descartes's extension to the other qualities does not indicate any difference in principle.
  - The primacy of mathematics

Secondary Properties Before Locke

- Descartes's rejection of the Resemblance Hypothesis
  - The sun example
  - Sensory properties are artifacts of interactions between our bodies and other bodies.
  - They are not real properties of those external bodies.
  - "Most philosophers maintain that sound is nothing but a certain vibration of the air which strikes our ears. Thus, if the sense of hearing transmitted to our mind the true image of its object then, instead of making us conceive the sound, it would have to make us conceive the motion of the parts of the air which is then vibrating against our ears" (Descartes, *Le Monde*, AT XI.5).
- Galileo argued for the primary/secondary distinction on analogy with a feather.
  - "When touched upon the soles of the feet, for example, of under the knee or armpit, it feels in addition to the common sensation of touch a sensation on which we have imposed a special name, 'tickling'. this sensation belongs to us and not to the hand. Anyone would make a serious error if he said that the hand, in addition to the properties of moving and touching, possessed another faculty of tickling, as if tickling were a phenomenon that resided in the hand that tickled" (Galileo, *The Assayer*, 275).
- The color, or odor, or taste, or heat, is not in the object which we perceive as colored, odored, tasty, or hot.



Locke's Water Experiment

- The same object displays incompatible properties at the same time.
- The Heraclitean response to the wax example
  - "No one subject can have two smells or two colors at the same time. To this perhaps will be said, has not an opal, or the infusion of *lignum nephriticum*, two colors at the same time? To which I answer that these bodies, to eyes differently placed, it is different parts of the object that reflect the particles of light. And therefore it is not the same part of the object, and so not the very same subject, which at the same time appears both yellow and azure. For it is as impossible that the very same particle of any body should at the same time differently modify or reflect the rays of light, as that it should have two different figures and textures at the same time" (IV.III.15, AW 396b).
- The Heraclitean response is unavailable in the water case.
  - The exact same water displays the incompatible properties.
- We need an account of the error that will not force us to abandon all sense experience.

Ideas of an apple

- Red
- Round
- Cool to the touch
- Sweet, though a bit sour
- Shiny
- Smooth
- Sits still on the table
- Crunchy
- Weighs 4 oz.
- Has a mass of 120 grams
- Is one apple
- Is being considered by you
- Smells like, well, an apple

Locke's Principles

- Locke tacitly presumes two principles to distinguish veridical ideas from misrepresentative ones.
- LP1: If one perceives an object as having two (or more) incompatible ideas, then those ideas do not represent real properties of the object.
  - Besides hot and cold, other sense ideas are not veridical, according to LP1.
  - Porphyry (II.VIII.19)
  - Almond (II.VIII.20)
  - Descartes's wax example
- LP1C1: Even if a change in us entails the change in the perceived quality, the ideas which change can not be veridical.
  - Orange juice
- LP1C2: Qualities that appear different to different observers are not veridical.
  - Color-blindness

Locke's Second Principle

- LP2: If an idea of an object is the same under all conditions, that idea is veridical.
  - "We may understand how it is possible that the same water may, at the same time, produce the sensations of heat in one hand and cold in the other; which yet figure never does, that, never producing the *idea* of a square by one hand, which has produced the *idea* of a globe by another" (II.VIII.21, AW 335b).
- LP2C: If every observer receives the same idea from an object, then that idea is veridical.

Apple, Redux

Red	Misrepresentative
Round	Real
Cool to the touch	Misrepresentative
Sweet, though a bit sour	Misrepresentative
Shiny	Misrepresentative
Smooth	Misrepresentative
Sits still on the table	Real
Crunchy	Misrepresentative (But consider its brittle texture)
Weighs 4 oz.	Misrepresentative
Has a mass of 120 grams	Real
Is one apple	Real
Is being considered by you	Misrepresentative
Smells like, well, an apple	Misrepresentative

- Thus, we have arrived at the primary/secondary distinction via argument:
- "These I call *original* or *primary qualities* of body, which I think we may observe to produce simple *ideas* in us, namely, solidity, extension, figure, motion or rest, and number. *Secondly*, such *qualities* which in truth are nothing in the objects themselves but powers to produce various sensations in us by their *primary qualities*...these I call *secondary qualities"* (II.VIII.9-10, AW 333a-b).

Primary Qualities and Secondary Qualities

- Primary
  - Solidity
  - Extension
  - Figure
  - Motion/ Rest
  - Number
- Secondary
  - Color
  - Odor
  - Hot/ Cold
  - Sound
  - Texture
  - Taste
- We can justify our beliefs on the basis of sense experience without worrying that we will be forced to accept errors as true because we are relying on our senses, rather than pure reason.

A Worry

- “Qualities thus considered in bodies are, first, such as are utterly inseparable from the body in whatever state it is, 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, though less than to make itself singly perceived by our senses - e.g., take a grain of wheat, divide it into two parts, each part has still *solidity*, *extension*, *figure*, and *mobility*; divide it again, and it retains still the same qualities; and so divide it on until the parts become insensible, they must retain still each of them all those qualities” (II.VIII.9, AW 333a).
- Why doesn’t the change in extension of the wheat show that extension is a secondary quality?
- Do electrons have shape?

The Primary/Secondary Distinction, the Resemblance Hypothesis, and Empiricism

- Locke accepts the Resemblance Hypothesis, for primary qualities only.
  - The *ideas of primary qualities* of bodies *are resemblances* of them and their patterns do really exist in the bodies themselves, but the *ideas produced* in us *by* these *secondary qualities have no resemblance* of them at all. There is nothing like our *ideas* existing in the bodies themselves (II.VIII.15, AW 334a).
- Our ideas of extension resemble extension in the world.
- My ideas of secondary qualities do not resemble anything in an object.
- On the basis of my ideas of primary qualities, then, I can justify significant conclusions about the world (i.e. the new science) without appealing to innate ideas.

Descartes and Locke

- Both Descartes and Locke were writing in support of modern science.
- Descartes believes that the essential characteristic of physical objects is extension.
- Locke believes that extension is just one of several primary qualities.
- They disagree more strongly about how we know about those properties.
- Their disagreement is mainly epistemological, not metaphysical.

Locke's Metaphysics

- God, finite intelligences, bodies
- The material world is nothing but particles in motion.
- Sense qualities of objects are not really in the world.
  - Lemons are not really yellow, or sour.
  - They are made of particles (atoms or corpuscles) that appear yellow or sour to normal human senses.
  - These minute particles unite in varying ways.
  - Depending on how they unite, they affect us in different ways.
- We might say that the lemon has a 'dispositional property' which makes us see it as yellow.
  - But the dispositional property is not yellowness, which is, properly speaking, a property only of my experience.

Galileo and Locke

- ...that external bodies, to excite in us these tastes, these odours, and these sounds, demand other than size, figure, number, and slow or rapid motion, I do not believe, and I judge that, if the ears, the tongue, and the nostrils were taken away, the figure, the numbers, and the motions would indeed remain, but not the odours, nor the tastes, nor the sounds, which, without the living animal, I do not believe are anything else than names (Galileo, *Opere* IV, 336).
- Take away the sensation of them; let the eyes not see light, or colors, nor the ears hear sounds; let the palate not taste, nor the nose smell; and all colors, tastes, odors, and sounds as they are such particular *ideas* vanish and cease, and are reduced to their causes, i.e., bulk, figure, and motion of parts (Locke, II.VIII.17, AW 334b).

The Mind-Body Problem

- While Locke was suspected of Hobbesian materialism, he is clearly a dualist.
- So, Locke is saddled with a typical mind-body problem.
- Locke does not provide a Cartesian-style solution to the mind-body problem, despairing of any satisfactory account.
- “Supposing the sensation or idea we name whiteness be produced in us by a certain number of globules, which, having a verticity about their own centres, strike upon the retina of the eye, with a certain degree of rotation, as well as progressive swiftness; it will hence easily follow, that the more the superficial parts of any body are so ordered as to reflect the greater number of globules of light, and to give them the proper rotation, which is fit to produce this sensation of white in us, the more white will that body appear, that from an equal space sends to the retina the greater number of such corpuscles, with that peculiar sort of motion... I cannot (and I would be glad any one would make intelligible that he did), conceive how bodies without us can any ways affect our senses, but by the immediate contact of the sensible bodies themselves, as in tasting and feeling, or the impulse of some sensible particles coming from them, as in seeing, hearing, and smelling; by the different impulse of which parts, caused by their different size, figure, and motion, the variety of sensations is produced in us” (IV.II.11).

Locke's Humility

- There are lawful correspondences between physical events and some mental states.
- If these lawful correspondences are possible, it seems possible for matter to think.
- It seems equally unlikely for whatever substance in which thought resides to be the seat of thought as for matter to be the seat of thought.
- "We have the *ideas* of *matter* and *thinking*, but possibly shall never be able to know whether any mere material being thinks or not, it being impossible for us, by the contemplation of our own *ideas*, without revelation, to discover whether omnipotence has not given to some systems of matter fitly disposed a power to perceive and think, or else joined and fixed to matter so disposed a thinking immaterial substance - it being in respect of our notions not much more remote from our comprehension to conceive that God can, if he pleases, superadd to matter a faculty of thinking than that he should superadd to it another substance with a faculty of thinking, since we do not know in what thinking consists, nor to what sort of substances the Almighty has been pleased to give that power..." (IV.III.6, AW 393b).
- "*The extent of our knowledge* comes not only short of the reality of things, but even of the extend of our own *ideas*"(IV.III.6, AW 393a).

The Hard Problem

- So, why do the lemons appear yellow?
- We lack an explanation of the connection between my quale and its cause.
- Why is it that such and such motions in the air cause me to hear a symphony?
- Why is it that certain wavelengths of light cause me to see blue?
- "That the size, figure, and motion of one body should cause a change in the size, figure, and motion of another body is not beyond our conception. The separation of the parts of one body upon the intrusion of another and the change from rest to motion upon impulse, these and the like seem to have some *connection* one with another. And if we knew these primary qualities of bodies, we might have reason to hope we might be able to know a great deal more of these operations of them one upon another. But our minds not being able to discover any *connection* between these primary qualities of bodies and the sensations that are produced in us by them, we can never be able to establish certain and undoubted rules of the consequence or *coexistence* of any secondary qualities, though we could discover the size, figure, or motion of those invisible parts which immediately produce them. We are so far from knowing what figure, size, or motion of parts produce a yellow color, a sweet taste, or a sharp sound that we can by no means conceive how any *size, figure*, or *motion* of any particles can possibly produce in us the *idea* of any *color*, *taste*, or *sound* whatsoever; there is no conceivable *connection* between the one and the other" (IV.III.13).

Empiricism and Mathematics

- As a rule, the empiricist has difficulty explaining our knowledge of mathematics.
- It is difficult to see how experience can support universal claims about mathematical objects, which are not sensible.
- Locke's account of our knowledge of mathematics, like his account of our knowledge of God, does not rely on innate ideas.
- Instead, it relies on intuition and demonstration, starting with ideas of sensation, and then using reason to discover relations among them.
  - "I do not doubt but it will be easily granted tht the *knowledge* we have of *mathematical truths* is not only certain, but *real knowledge*, and not the bare empty vision of vain insignificant *chimeras* of the brain. And yet, if we will consider, we shall find that it is only of our own *ideas" (*IV.IV.6, AW 404b).

Locke's Philosophy of Language

- Words stand for ideas in our minds.
  - Controversial claim
  - We ordinarily take many words to stand for objects outside of our minds.
  - We normally take 'this table' to refer to the table, not to my idea of the table.
- A representational theory of mind
  - Ideas are like pictures in the mind
  - Terms stand for ideas, which correspond to objects, like chairs, people, or even circles.

Words Stand for Ideas

1. Society depends on our ability to communicate our ideas, so words have to be able to stand for ideas.

2. If ‘book’ referred both to my idea of a book and something else (e.g. your idea, or the book itself), then it would be ambiguous in a way in which it is not.

3. Also, since my ideas precede my communication, words must refer to my ideas before they could refer to anything else.

4. So, it is impossible for words also to stand for something other than my ideas.

So, words stand for my ideas.

“[It is] perverting the use of words, and bring[ing] unavoidable obscurity and confusion into their signification, whenever we make them stand for anything but those ideas we have in our own minds” (§III.II.5).

General Terms

- Particular terms correspond to simple ideas.
- There are too many particular things for them all to have particular names.
- We have to use general names.
  1. Human capacity is limited (III.IIII.2, AW 377a).
  2. You don't have names for my ideas and I don't have names for yours (III.IIII.3, AW 377a-b).
  3. Science depends on generality (III.IIII.4, AW 377b).
- We use general names for communication and for science.

Mathematics

- General names are the foundation for empirical science, and formal sciences like mathematics and logic.
- We get knowledge of mathematical objects, which we do not experience, by a process of abstraction.
- Doughnuts and frisbees, and circles
- We leave out other properties, form an abstract idea, and coin a general term to stand for it.
  - We experience extended things, but not extension itself.

Abstraction

sense experiences

backs, seats, legs

chair

table

furniture

house

apartment building

domicile

animal

person

extension

motion

substance

Abstraction and Science

- Ideas of bodies and motion are the foundations of physical science.
  $v = \Delta s/\Delta t$
- We can abstract to the term, 'physical object'.
- General terms, and the abstract ideas to which they refer, apply to particular objects, but only to certain aspects of those objects.
  "[A general] *idea* [of man] is made, not by any new addition, but only...by leaving out the shape, and some other properties signified by the name *man*, and retaining only a body, with life, sense, and spontaneous motion, comprehended under the name *animal*"(III.IIII.8, AW 378a).
- A progression of abstraction leads us from terms for particular sensations to terms for bodies.
- So, the term 'bodies', which we have constructed to stand for an abstract idea, refers to bodies, which are physical objects.

Abstraction and Mathematics

- Both the use of general terms and our ability to remember the distinct parts of a proof are essential to mathematics.
- "If...the perception that the same *ideas* will eternally have the same habitudes and relations is not a sufficient ground of knowledge, there could be no knowledge of general propositions in mathematics, for no mathematical demonstration would be any other than particular" (IV.I.9, AW 388b).
- The abstract generality of mathematical claims supports their certainty.
- "[The mathematician] is certain all his knowledge concerning such *ideas* is real knowledge, because intending things no further than they agree with his *ideas*, he is sure what he knows concerning those figures, when they have barely an *ideal existence* in his mind, will hold true of them also when they have real existence in matter, his consideration being barely of those figures which are the same, wherever or however they exist" (IV.IV.6, AW 404b).

Ethics, Too

For certainty being but the perception of the agreement or disagreement of our *ideas*; and demonstration nothing but the perception of such agreement, by the intervention of other *ideas* or mediums, our moral *ideas*, as well as mathematical, being archetypes themselves, and so adequate and complete *ideas*; all the agreement or disagreement which we shall find in them will produce real knowledge, as well as in mathematical figures (IV.IV.7, AW 404b).

Nominalism

some words are merely names and do not denote real objects or properties

- We are all nominalists about fictional objects, like the Easter Bunny.
- Some people are nominalists about numbers.
- Locke is a nominalist about color, and other secondary properties.
- Locke is also a nominalist about the referents of abstract ideas.
  - "Universality does not belong to things themselves, which are all of them particular in their existence, even those words and *ideas* which in their signification are general. When therefore we quit particulars, the generals that rest are only creatures of our own making, their general nature being nothing but the capacity they are put into by the understanding of signifying or representing many particulars. For the signification they have is nothing but a relation that, by the mind of man, is added to them" (III.IIII.11, AW 379a).

Essences

- Locke does not have much to say, positively, about essences.
- Since we do not have sense experience of the essence of an object, there is little to be said.
- "The real internal, but generally, in substances, unknown constitution of things on which their discoverable qualities depend, may be called their *essence*" (III.III.15, AW 380a).
- To arrive at an idea of essence, we must generalize from particular sensation, and form an abstract idea.
- But, strictly speaking, essences, being abstract ideas, are not real, either.
- "That which is *essential* belongs to it as a condition, by which it is of this or that sort; but take away the consideration of its being ranked under the name of some abstract *idea*, and then there is nothing necessary to it, nothing inseparable from it" (III.VI.6, AW 383b).
- Again, Locke is a nominalist about essences.

Objectivity without Objects

- For all his nominalism, we are not supposed to think that Locke denigrates mathematical or moral knowledge.
  - "All the discourses of the mathematicians about the squaring of a circle, conic sections, or any other part of mathematics, *do not concern* the *existence* of any of those figures, but their demonstrations, which depend on their *ideas*, are the same, whether there is any square or circle existing in the world or not. In the same manner the truth and certainty of *moral* discourses abstract from the lives of men and the existence of those virtues in the world of which they treat" (IV.IV.8, AW 405a).
- Our knowledge of the external world, the causes of our sensations and the laws that govern physical interactions, contains deep mysteries, inexplicable absent something like a rationalist's principle of sufficient reason.
  - "I think not only that it becomes the modesty of philosophy not to pronounce magisterially where we want that evidence that can produce knowledge, but also that it is of use to us to discern how far our knowledge does reach, for the state we are at present in, not being that of vision, we must in many things content ourselves with faith and probability" (IV.III.6, AW 394a).