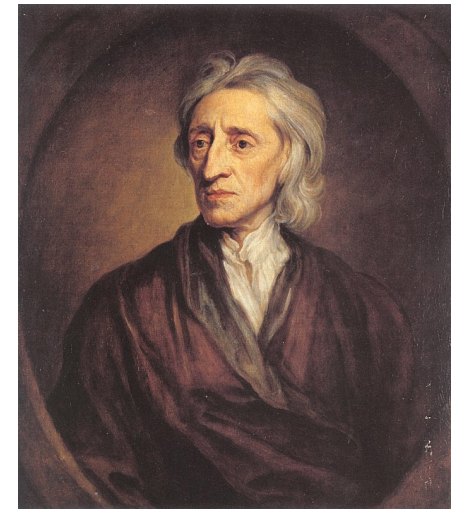


# Introduction to Philosophy

Philosophy 110W  
Spring 2012  
Russell Marcus

Class #4 - Sense Experience  
Descartes and Locke



# Business

- Optical illusions
- Writing Center
  - not for Paper #1, please
- Presentation schedule - final?
- Today: Appearance, Reality, and Sensation
  - 40 slides!
- Précis at end of class

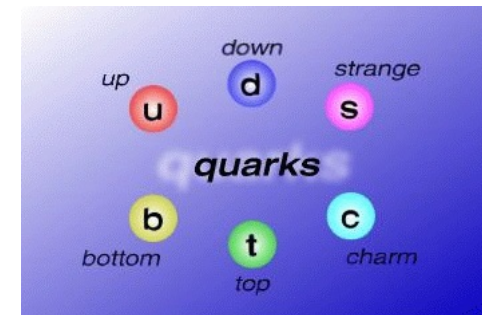
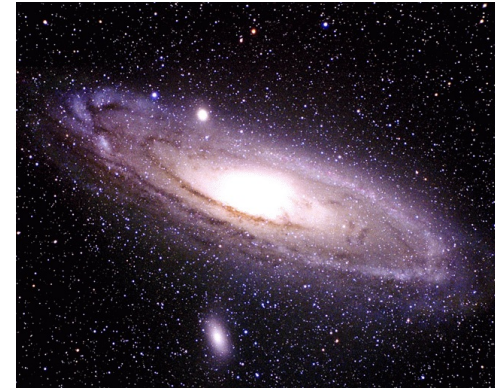
# Descartes's Doubt

- Three reasons to doubt that the world is as we perceive it
- His larger project is to use these doubts to rid ourselves of preconceptions.
- Remove our false beliefs
- Replace them with true ones



# Illusion

- Sensory illusions undermine our sensory beliefs.
  - Distant or ill-perceived objects
  - Very small objects
- Our knowledge of close, medium-sized objects, like our own bodies, resists doubts deriving from illusions.



# The Senses



- Among the most difficult beliefs to abandon are those which we grasp with our senses.
- What we see, and even more so what we touch, we take as most real.
- “Whatever I have up till now accepted as most true I have acquired either from the senses or through the senses” (76).
- What’s the difference?
- Are all of our beliefs derived from the senses?

# Why Do You Believe?

C1. You exist.

C2. You are taking a philosophy class.

C3. Your best friend likes you.

C4. Katy Perry and Russell Brand are divorcing.

C5. Shakespeare wrote *The Tragedy of Macbeth*.

C6. The sun will rise tomorrow.

C7. An object in motion will remain in motion, an object at rest will remain at rest, unless acted upon by an unbalanced force.

# Empiricism

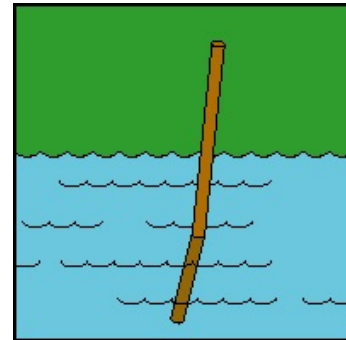
- Some philosophers, called empiricists, claim that all knowledge is derived from sense experience.
- Empiricism is difficult to reconcile with our knowledge of mathematics.
  - We never sense mathematical objects like circles or numbers.
- Some sentences do not seem to depend on sense experience for their justification.
  - 'Bachelors are unmarried'
- Locke and Berkeley

# Rationalism

- Rationalists believe that some knowledge comes from our ability to reason, independently of the senses.
- Knowledge based on reason is sometimes called *a priori* knowledge.
- Logical and mathematical beliefs are often taken to be acquired *a priori*.
- So are our beliefs in sentences like the one about the bachelors.
- Descartes is a rationalist.
- Does all knowledge come from experience?

# Illusion, Redux

- Descartes first worried about illusions.
- Our senses sometimes deceive us.
- But we have other sensory ways of discovering the truth.
- While we might see a mirage, we can also approach it, and discover that it is not real.
  - The stick in water
- Illusion may allow us to doubt some specific properties of physical objects, but that's about all.



# The Dream Argument

- Descartes wonders if there is a way to know whether he is dreaming.
- Three distinct questions:
  - A. Is there any way of distinguishing waking from dreaming experience?
  - B. What beliefs does the possibility of our dreaming eliminate?
  - C. Is there anything of which we can be sure, even if we are dreaming?



# *Inception*



- The difference between waking states and dreaming states.
- Totems
- Moll secretes her totem, choosing to live in a dream state.
  - Does she control her beliefs?
  - Doxastic involuntarism (again!)

# Distinguishing Waking from Dreaming Experience

- We can dream of things that do not exist.
- We can dream that things which do exist have different properties than they actually do.
- Anything we can do when we are awake, we can dream we are doing.
- We would need to know that the totem is a true indicator of the difference between waking and dream states.
- If the totem continues to spin, one can be sure that one is in a dream state.
- Why couldn't we dream that the totem stops spinning?
  - Chart
- There is no mark to distinguish waking from dreaming.

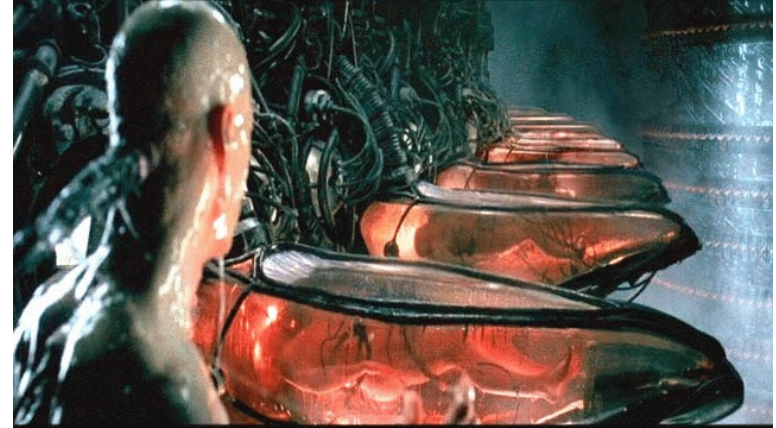
# What Beliefs Does the Possibility of Our Dreaming Eliminate?

- The answer will be long and detailed.
- We can fantasize entirely novel objects, so we can not be sure that the objects in our dreams exist.
- There need not even be any Earth, or any people.
- We could be sentient machines, dreaming about people, in the way that we, supposing our ordinary views of the world, can dream of sentient machines.
- We can even doubt that any objects exist, since we could be just disembodied minds.
- If we can not be sure that we are not dreaming, then we can not be sure of anything our senses tell us.

# What Remains?

- If we can not be sure that our sense experience is veridical, perhaps there is non-sensory knowledge that resists the dream doubt.
- Even if we are dreaming, our beliefs in mathematical claims, like '2+2=4' or 'the tangent to a circle intersects the radius of that circle at right angles' may survive.
- Descartes also claims that the universals from which objects are constructed, the properties of objects, remain, as well.
  - color, shape, quantity, place, time
- Even if no object has these properties, the properties remain, insofar as they are in our minds.
- "It is from these components, as if from true colors, that all those images of things that are in our thought are fashioned, be they true or false."

# The Deceiver



- What if there were a powerful deceiver who can place thoughts directly into our minds?
- Brains in Vats
  - According to such examples, our thoughts really happen in brains.
  - There is a physical reality, but it is unlike the one we perceive.
  - In contrast, the deceiver hypothesis is consistent with the non-existence of the physical world.
- We could be disembodied minds, whose thoughts are directly controlled by an independent source.
- When we apply the deceiver hypothesis to our beliefs, we notice that just about all of them can be called into question.
- Nothing, it seems, is certain.

# Descartes's Goal

- Descartes does not want to defend skepticism.
- His goal is to provide a new foundation for knowledge.
- He seeks a single, unassailable truth, one that resists all reason for doubt.
- “Archimedes asked only for one fixed and immovable point so as to move the whole earth from its place; so I may have great hopes if I find even the least thing that is unshakably certain” (66).



# The Cogito

Whenever I am thinking, even if I am doubting, I must exist.

- ‘Cogito’ is Latin for ‘I think’.
- “I think; therefore I am”?
  - ▶ looks like a logical inference
- A logical deduction would require previous knowledge of premises, and that the conclusion follows from the premises.
- But Descartes eliminated logical knowledge on the basis of the deceiver doubt.
- Thus, the Cogito must not be a logical deduction according to prescribed rules from prior premises.
- Descartes calls it a pure intuition.

# What Does the Cogito Get Us?

- The cogito establishes the existence of a thinker, as long as the thinker thinks.
- Our thoughts, though, may not tell us anything true about the world.
  - The doubts about the content of thought remain.
- Even if our thoughts misrepresent the world, they still appear to us.
  - We certainly seem to sense the table.
- Even a dream world consists of appearances, with certain characteristics.
- I have direct access to my thoughts in a way that I seem to lack access to thoughts of others.
  - privileged access
- Ideas can not be false, considered only as images in our minds.



# Solipsism

Only I exist



# Sense Experience

- Even if I am systematically deceived, I still have my sense experience.
- But sense experience may not get us an external world.
- Moreover, it is not categorical.
  - We all have different retinal images of these words.
  - Our interpretations might differ.
- Descartes presents an alternative to reliance on sense experience.
  - Pure reason
- Locke defends reliance on sense experience.
- Let's start with the problem, from Descartes's stories of the wax and the sun.

# Descartes's Wax



- First, it is cold, hard, yellow, honey-flavored, and flower-scented.
- We bring the wax near a fire.
- After it is melted, the wax becomes hot and liquid, and loses its color, taste, and odor.
- All of its sensory properties have shifted.
- We have images of the wax, in several incompatible states.
- But we do not have an image of the essence of the wax, or of wax in general.
  - “I grasp that the wax is capable of innumerable changes of this sort, even though I am incapable of running through these innumerable changes by using my imagination... The perception of the wax is neither a seeing, nor a touching, nor an imagining...even though it previously seemed so; rather it is an inspection on the part of the mind alone “(46a).

# Real and Apparent Properties

- According to the new science, the wax is just a body which can take various manifestations, hot or cold, sweet or tasteless, etc., but is identified with none of these particular sensory qualities.
- “Perhaps the wax was what I now think it is: namely that the wax itself never really was the sweetness of the honey, nor the fragrance of the flowers, nor the whiteness, nor the shape, nor the sound, but instead was a body that a short time ago manifested itself to me in these ways, and now does so in other ways... Let us focus our attention on this and see what remains after we have removed everything that does not belong to the wax: only that it is something extended, flexible, and mutable.”

# Descartes: The Senses are Irrelevant to Knowledge

- Knowledge of physical objects comes from the intellect (or mind) alone.
- Any information we get from the senses does not rise to the level of knowledge.
- We can believe that the chair is blue, but we can never know this.
- We know that the wax can take more forms than we could possibly imagine: more shapes, more sizes.
- Our knowledge that there are other potential shapes and colors must go beyond anything that could come from the senses.
- Two different types of beliefs about the wax.
  - It has a particular shape, color, and other sense properties.
    - not knowledge
  - It can take on innumerably many different forms.
    - knowledge

# Appearance and Reality

- Descartes claims that the world is not as it appears.
  - Our senses may be misleading.
    - In small ways, as when we perceive an illusion.
    - In larger, systematic ways, if we are dreaming or deceived.
- The wax example shows that physical objects are essentially none of their sense characteristics.
  - The world out there is unlike the world as it appears to us.

# The Resemblance Hypothesis

RH: Our sensory ideas are like the world.

- The claim that our sensory ideas are like the world may be called the resemblance hypothesis.
- Aristotle took sensory qualities to be real 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.
  - I see the apple as red because my eye itself is able to change to red.
- On Aristotle's view, our ideas resemble their causes.
- Objects really have the properties that we perceive them to have.

# Descartes and the Resemblance Hypothesis

- Descartes rejects RH.
- He provides an example of the sun.
- The senses tell us that the sun is very small.
- We reason that the sun is very large.
- “Both ideas surely cannot resemble the same sun existing outside me; and reason convinces me that the idea that seems to have emanated from the sun itself from so close is the very one that least resembles the sun “(Third Meditation).
- Knowledge of objects comes from the mind alone.
- Our most secure knowledge, like that of mathematics, is innate.



# Locke and the Blank Slate



- Locke denies Descartes's claims about innate ideas.
  - ▶ “Let us then suppose the mind to be, as we say, white paper, void of all characters, without any *ideas*. How does it come to be furnished? From where does it come by that vast store which the busy and boundless fancy of man has painted on it with an almost endless variety? From where does it have all the materials of reason and knowledge? To this I answer, in one word, from *experience*; our knowledge is founded in all that, and from that it ultimately derives itself” (II.I.2).
- We learn particulars, first, beginning with sense experience.
- Individual perceptions are simple.
  - ▶ Impressions of the same object under different sense modalities are independent.
  - ▶ The taste of the lemon is independent of its yellowness, and of its texture and odor.

# The Molyneux Problem

- “Suppose a man born blind, and now adult, and taught by his touch to distinguish between a cube and a sphere of the same metal, and nearly of the same bigness, so as to tell, when he felt one and the other, which is the cube, which the sphere. Suppose then the cube and sphere placed on a table, and the blind man be made to see. Quaere, whether by his sight, before he touched them, he could now distinguish and tell which is the globe, which the cube” (Locke, *Essay* II.IX.8)?
- Locke denies that the blind person could tell which was the sphere and which was the cube without touching the objects.
- Our sense of touch is independent of our vision.

# Sensation and Reflection

- We can hold sensory ideas in memory, and recall them.
- We can generalize, or abstract, to find universals, like those of mathematics.
- “The senses at first let in particular *ideas*, and furnish the yet empty cabinet, and the mind by degrees growing familiar with some of them, they are lodged in the memory, and names got to them. Afterwards the mind proceeding further abstracts them, and by degrees learns the use of general names” (I.II.15, AW 321a).
- But:
  - the dream doubt
  - the wax example
  - the sun example

# Locke and the Primary/ Secondary Distinction

- To avoid problems of misleading sense experience, Locke presents the primary/secondary distinction.
- Some apparent properties of physical objects are misleading; objects do not really have those properties.
- Some apparent properties of objects are veridical.
- The challenge is to distinguish the primary qualities from the secondary qualities.

# Locke's Water Experiment

- The same object displays incompatible properties at the same time.
- “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).



# Locke's First Principle

- 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).
- LP2C: If every observer receives the same idea from an object, then that idea is veridical.

# Ideas of an Apple



- 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)
- Weights 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
- “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).

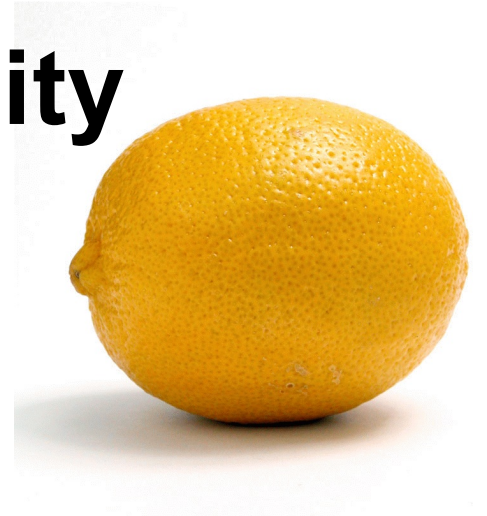
# Primary Qualities and Secondary Qualities

- 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.

# The Primary/Secondary Distinction and the Resemblance Hypothesis

- 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).
- 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.

# Experience and Reality



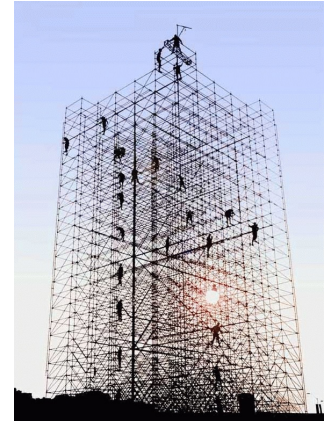
- The world is nothing but particles in motion.
- Sense qualities of objects are not really in the world.
- Lemons are not really yellow, or sour.
- They are made of particles (atoms or corpuscles) that appear yellow or sour to normal human senses.
- These minute particles unite in varying ways.
- Depending on how they unite, they affect us in different ways.
- We have ideas which arise from the interaction between our senses and the material world.

# Galileo and Locke

## On the Primary/Secondary Distinction

- ...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).

# Descartes's View



- The only real property of physical objects is 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 VIII A.78)

# Locke's Mysterianism

- The question remains why lemons appear to be yellow and bitter.
- Why do such and such motions in the air cause me to hear a symphony?
- Why do 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).