

British Empiricism

an entry point: Molyneux's Problem

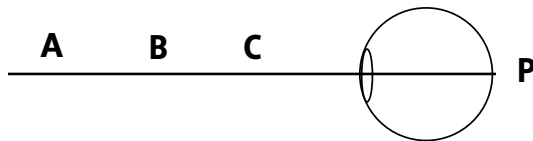
A Man, being born blind, and having a Globe and a Cube, nigh of the same bignes, Committed into his Hands, and being taught or Told, which is Called the Globe, and which the Cube, so as easily to distinguish them by his Touch or Feeling; Then both being taken from Him, and Laid on a Table, Let us Suppose his Sight Restored to Him; Whether he Could, by his Sight, and before he touch them, know which is the Globe and which the Cube? Or Whether he Could know by his Sight, before he stretch'd out his Hand, whether he Could not Reach them, tho they were Removed 20 or 1000 feet from Him?

If the Learned and Ingenious Author of the Forementiond Treatise think this Problem Worth his Consideration and Answer, He may at any time Direct it to One that Much Esteems him, and is,

His Humble Servant
William Molyneux
High Ormonds Gate in Dublin. Ireland

or simply, can a blind man, sight restored, see?

"For distance of it self, is not to be perceived; for 'tis a line (or a length) presented to our eye with its end toward us, which must therefore be only a point, and that is invisible."



British Empiricism

Acceptance of Descartes position of importance of material body, but argued against innate faculties and primacy of reason

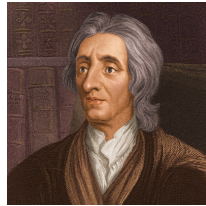
"Tabula rasa"



passive v. active ideas

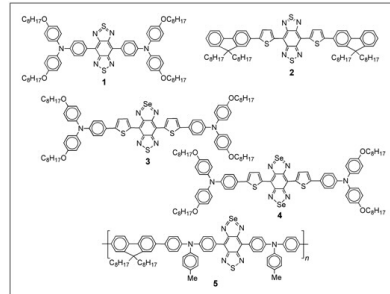
John Locke (1632-1704)

Whatsoever the mind perceives in itself, or is the immediate object of perception, thought, or understanding, that I call idea...

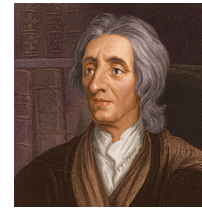


sensation v.

Elemental ideas can combine to create entirely new ideas, with properties that are non-reducible to their basic parts



ideas heavily influenced by contemporary findings in physics and chemistry



... and the power to produce any ideas in our mind, I call quality of the [object] wherein that power is."

an objects' **quality** is its power to produce an **idea**

primary & secondary

"both primary and secondary refer to characteristics of the physical world... difference in type of experience caused"

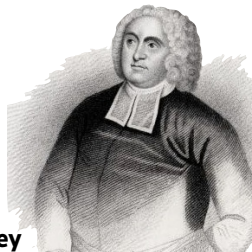
contrast Galileo (secondary qualities have no physical counterparts)

qualities... a different approach

idealism — *"esse est percipi"*

natural laws = ideas of God

George Berkeley



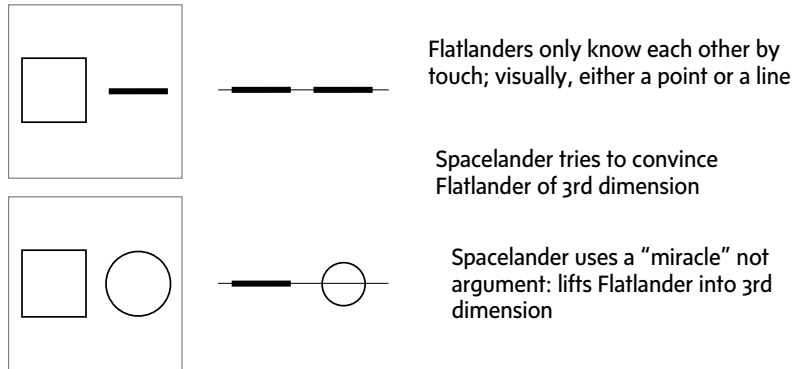
Berkeley v. Locke

Correspondence v. Coherence Theories of Truth

associationism

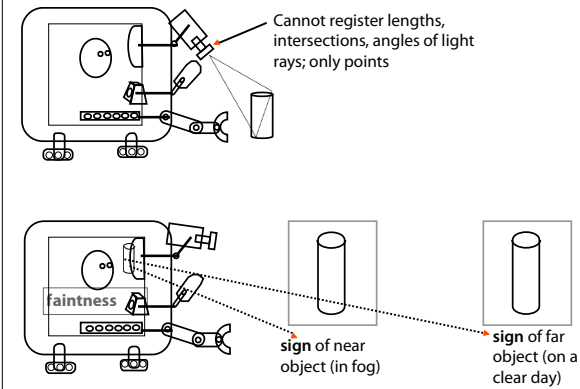
Berkeley's hypothesis

part 1: a story and a conceit.



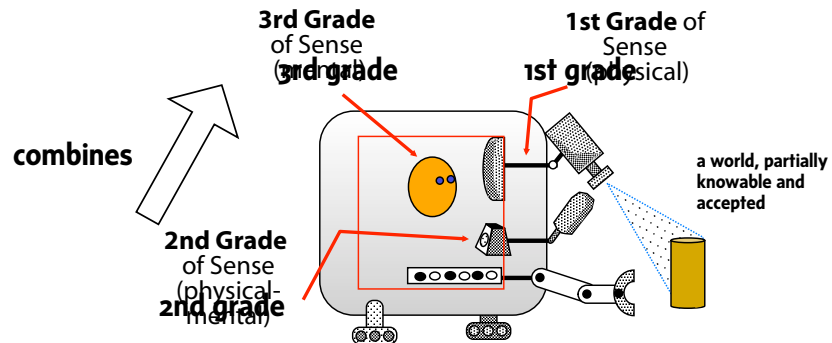
Berkeley's hypothesis

pt. Deux: answering Molyneux's problem



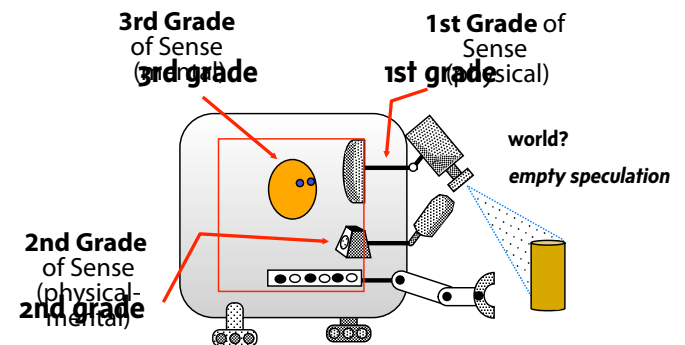
the man in the inner room

Locke's Perspective: Representational Realism



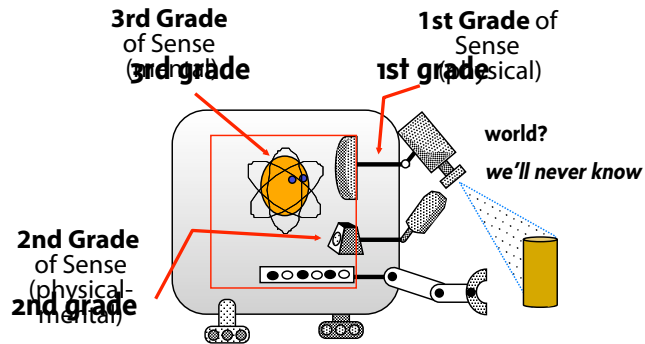
the man in the inner room

Berkeley's Perspective: Idealism



the man in the inner room

Hume's Perspective: Skepticism



Mental Mechanics: If Newton can get the universe... we can surely get the mind

Hume's Philosophy

two major goals: 1) improve upon Locke and Berkeley; 2) rid philosophy of metaphysics

Locke: "what's your mechanism?"

Berkeley: "where is your God?"

"nothing is ever really present in the mind but its perceptions or impressions and ideas.."



complex ideas only valid if they could be reduced to simpler ones; metaphysical arguments false

not all ideas correspond to impressions

shots fired at D, L, B, G ...

fact, fiction, and belief...

laws of motion → mental mechanics

resemblance, contiguity, cause and effect



Three unjustifiable beliefs

"comfortable habits of mind"

analysis of causation

can one perceive cause?

(a) events are contiguous; (b) cause precedes effect; (c) "constant union betwixt" C & E; & (d) same C produces same E, same E always from same C.

present impression + idea of impression + association

what can be known?

empirical and demonstrative knowledge

perceptions help turn fictions into facts (to a degree)

"Most fortunately it happens, that since reason is incapable of dispelling these clouds, nature herself suffices to that purpose, and cures me of this philosophical melancholy and delirium, either by relaxing this bent of mind, or by some avocation, and lively impression of my senses, which obliterate all these chimeras. I dine, I play a game of backgammon, I converse, and am merry with my friends; and when after three or four hours' amusement, I would return to these speculations, they appear so cold, and strained, and ridiculous, that I cannot find in my heart to enter into them any farther."

John and John Stuart Mill

the most comprehensive analysis of associationism

Jacket White
Book Green
Dodo Red
Fly Yellow
Meth Blue
Chapter Purple

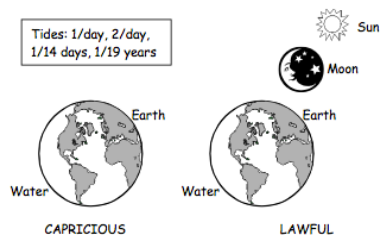
associations that involve pleasure or pain extremely powerful

J v. JS: mental mechanics v. mental chemistry

primary v. secondary laws
exact v. inexact sciences

anticipating complexity science
and study of individual differences

John Stuart Mill



connection to behaviorism

"by the proper application of rewards and punishments may be taught any course of action, the most contrary to their natural instincts and propensities"



The term **operant conditioning** was coined by Skinner
behavior is **operant** because it is "designed to operate on the environment."

learning is **active**—the **associations** between action and its **consequences**.

to change a learned behavior,
change the animal's **reinforcement contingencies**



Hume's touchstone

animal behaviors in the box result in positive or negative outcomes

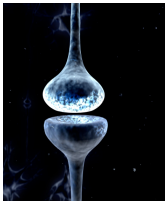
Hartley, Hebbian Learning, and modern models of mind



focus on physiology and anatomy

Hebb's Law of Exercise
"neurons that wire together fire together"

connectionist / node
models



Stimulus and Response are
connected by a neural bond

Strength of bond varies and
determines $p(\text{Response}):\text{Stimulus}$

Alexander Bain

The Senses and the Intellect

major work to link physiology to psychology

laws of **compound association** and **constructive association**

on movement:

"For every act of memory, every exercise of
bodily aptitude, every habit, recollection, train of
ideas, there is a specific grouping, or co-
ordination, of sensation and movements, by
virtue of specific growth in the cell junctions"



finally, psychology?

Leave philosophy and speculation; move to science of
observation and **experiment**

identification of laws and principles that govern behavior

demonstration of how psychology could be a material, inexact
science

neuron doctrine: possibility of connecting mind and body

debates on positivism and logical positivism

but Bain is not the start of psychological science...

but we still have one last stop...