Rationalism



the Rationalist tradition

What Descartes got right

how do we arrive at truth?

rationalism v. empiricism

active mind

rational reasons for behavior

appeals to axioms (endowed)

passive mind

mechanistic causes of behavior

appeals to generalizations



Spinoza

"Ethics: Demonstrated in Geometrical Order"

what Descartes got wrong: dualism

what the empiricists got right: determinism

pleasure = clarity of ideas poverty of Stimulus (mind resolves to bring pleasure)

on emotions...

emotions v. passions

complex emotions can be derived from basic (pleasure & pain)

wonder, contempt, love, hatred, devotion, hope, fear, confidence, despair, joy, disappointment, pity, indignation, jealousy, envy, sympathy, humility, repentance, pride, honor, shame, regret, gratitude, revenge, cowardice, ambition, and lust

emotions interact and transfer

if an object is first loved and then hated... if an object causes pain...



Leibniz

what Descartes got wrong:

what Locke got wrong:

consequence: you're not going to find mind in analysis of body

the discovery of knowledge (idea) proceed from axioms and corollaries derived from them

what does experience do?

how does it do it?

Monadology

advances in histology reveal micro-organisms

everything consists of these life units: monads

"matter is consciousness... consciousness is matter"

physical and mental representations of the same thing from different POV:



$$x^2 + y^2 = r^2$$

on perception...

what people perceive as world is just the <u>activity</u> of infinity of monads

distinguishes between conscious and unconscious "some monads imperceptible"

law of continuity

perception exists along a continuum awareness (limen)

Thomas Reid

commonsense philosophy

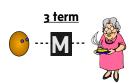
"there is no basis, but we experience (have knowledge) anyway"



I resolve not to believe my senses. I break my nose against a post that comes in my way; I step into a dirty kennel; and after twenty such wise and rational actions I am taken up and clapped into a madhouse.

on direct realism

Hume on indirect realism

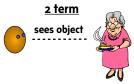


"The table, which we see, seems to diminish, as we remove farther from it: but the real table, which exists independent of us, suffers no alteration: it was, therefore, nothing but its image which was present to the mind. These are the obvious dictates of reason; and no man, who reflects, ever doubted, that the existences, which we consider, when we say, this house and that tree, are nothing but perceptions in the mind, and fleeting copies or representations of other existences, which remain uniform and independent."

Reid on direct realism

The **information** of the senses is as perfect, and gives as full conviction to the most ignorant, as to the most learned.

nothing needs to be employed in order to experience the world



we have an innate ability of perception (faculty psychology)

Kant, Gestalt, Ecological Psychology

Kant

what Leibniz got wrong:

"scandal of philosophy" those who conceived the world as unreal or whom he felt was questioning its reality

what Hume got right:

wrong:

"how do we know what we know?"

we are designed to experience the world the way we do

ideas and rules

Locke & Berkeley: theories of truth

focus on ideas (cognition) as they relate to objects and other ideas

"an idea can resemble nothing but another idea"

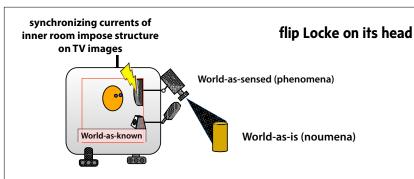
most basic concepts are rules (axioms) that structure experience into a comprehensible form

categories of thought:

- quantity: unity, plurality, totality,
- quality: reality, negation, limitation
- relation: inherence and subsistence, cause and effect, community
- **modality**: existence-nonexistance, possibility-impossibility, necessity and contingency

two innate intuitions: space and time

scientific facts result from observations made by prepared and organized mind.



take space...

- 1. not derived from, but is presupposed by sensory experience
- 2. space is independent of objects / "no space" not conceivable
- 3. space is unitary and infinite

Kant: space as pure form of intuition

Transcendental Argument: independent of experience, but constrains experience

We could not have X if Y were not the case; we do have X, therefore, Y must necessarily be the case.

Necessary truths originate outside experience.

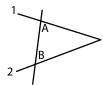
Analytic judgment: X is Y, if Y merely clarifies X ("all bachelors are unmarried"). True without appeal to experience. *A priori*.

Synthetic judgment: X is Y, if Y amplifies X ("all bachelors are happy"). Experience (experiments) required. *A posteriori*.

can there be synthetic a priori judgments?

Euclidean geometry is synthetic a priori. Therefore, space is mathematical. Euclidean geometry <u>is</u> space, not a characterization.

Euclid's Fifth Postulate:



If a straight line falling on two straight lines makes the interior angles on the same side less than two right angles, then the two straight lines if extended will meet on that side of the straight line on which the angles are less than two right angles.

Simply:

If $A + B < 180^{\circ}$ then 1 and 2 will eventually meet If $A + B = 180^{\circ}$, then 1 and 2 will never meet.

For any line there is only one other that travels thru point P that remains parallel to it.

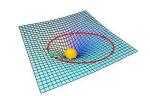


Newton

space as pre-existing (independent of the events that occur within it). Things populate space and move within it. Space has a (Euclidean) geometry at outset.

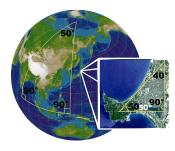
20th century (Einstein)

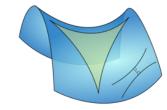
All you have is the distribution of matter. The distribution of matter generates the geometry ... generates the space.



Space not *a priori*. Change distribution of mass ... change the space ... change the geometry.

"God cannot do 3 things: sin, copy himself, make a triangle with greater than 180 degrees" - St. Thomas Aquinas





Kant on practical reason and conclusions

reasons for behavior v. causes of

categorical imperative: "I should never act except in such a way that I can also will that my maxim should become a universal law"

exists outside of empirical world / allows for free will

is psychology a science?

cannot be an experimental science

but can be a mathematical science



Herbart

relationships between ideas, how they are attracted to one another and how they rise to consciousness

dawn of psychology

Free will versus determinism (behavior)

Nature versus nurture

Rationalism versus empiricism - a priori v. a posteriori

Reason v. Instinct

Reductionism v. Wholism

Continuity versus discontinuity with other animals

Conscious versus unconscious

Mind versus body

the past six weeks have been about identifying the frameworks through which we have attempted to address these questions.