Philosophy 427
Intuitions and Philosophy

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Class 2: Foundationalism

Two foundationalist projects in the modern era

- Rationalism, epitomized by Descartes
- Empiricism, epitomized by Locke and Hume

Descartes's Meditations

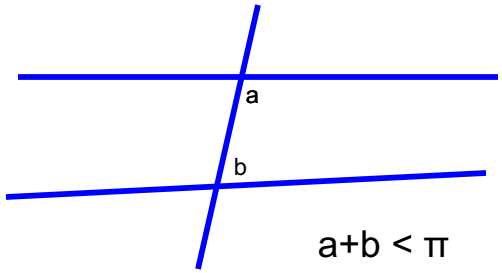
- Three skeptical hypotheses
  - Sense illusion
  - Dreaming
  - Demon deceiver
- A "single Archimedean point": knowledge of his mind: "I am, I exist, as long as I am thinking."
- God's existence
- A method of securing all the rest of his knowledge, ensured by the goodness of God
- The rest of the details
  - the new Galilean science
  - some orthodox religious beliefs

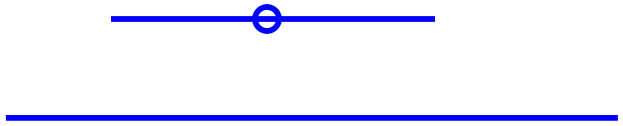
The synthetic presentation

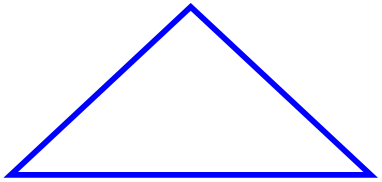
- Based on Euclid's Elements
  - foundational claims in geometry gain universal agreement
  - metaphysical foundations are less obvious to the folk
- *The Elements*
  - definitions: mainly unproblematic
  - five more general logical axioms, or common notions
    - not in question in geometry
    - In metaphysics, they are more contentious
  - five geometric postulates
  - The remaining propositions

The parallel postulate

- If a straight line falling on two straight lines makes the interior angles on the same side less than two right angles, the two straight lines, if produced indefinitely, meet on that side on which are the angles less than the two right angles.
- Playfair's postulate: given a line, and a point not on that line, there exists exactly one line which passes through the given point parallel to the given line.
- Angle sum theorem: the sum of the angles of a triangle is 180 degrees (pi)

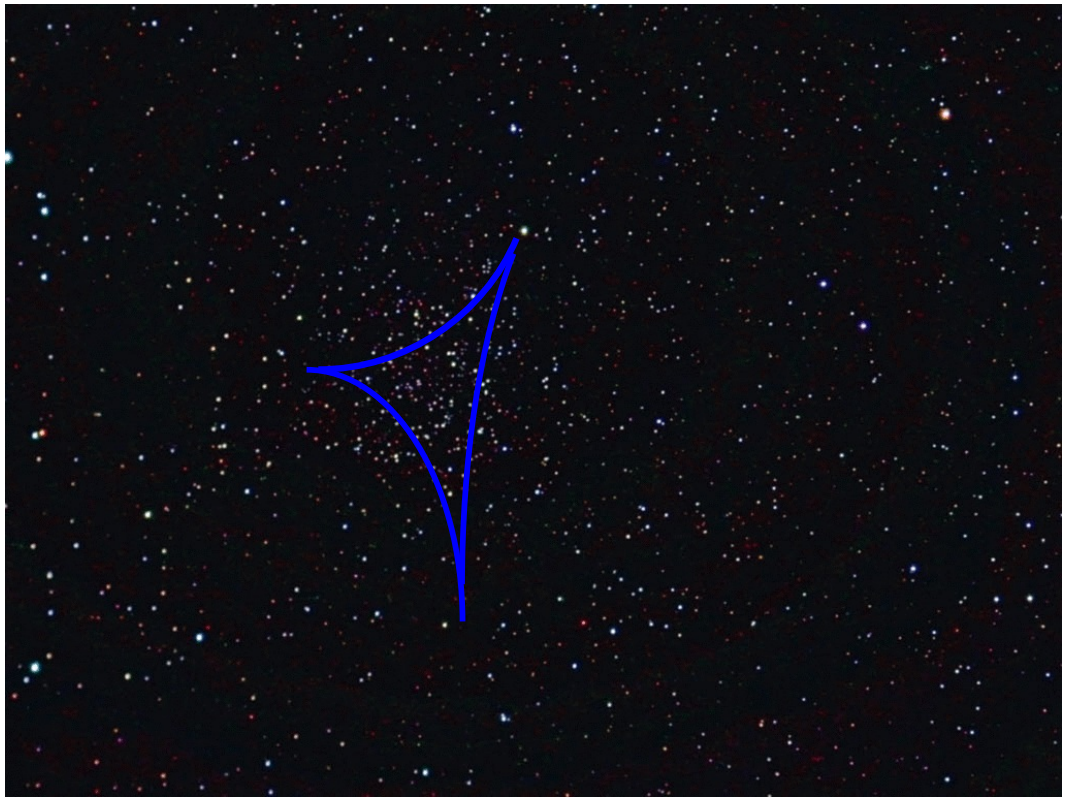






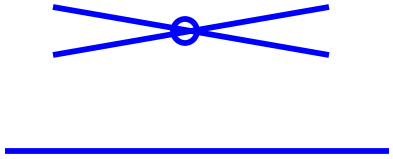
Interstellar triangles

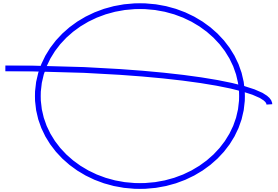
- The sum of the angles of our interstellar triangle will be less than pi
- Space-time is not Euclidean, but hyperbolic.



Non-Euclidean geometries

- In hyperbolic geometry, instead of there being one line that we can draw parallel to the given line in Playfair's postulate, there are an infinite number of lines.
- In Riemannian, or spherical, geometry, there are no parallel lines.
- Non-Euclidean geometries were developed in detail in the nineteenth century after two millennia of trying to prove the parallel postulate from the other postulates.
- That is, geometers were uncomfortable with taking the parallel postulate as a given.
- They wanted it to be derived from other givens.
- But, the other givens seemed pretty much unassailable.





The Synthetic (Geometrical) Version of the *Meditations*

- Like Euclid, Descartes provides definitions, postulates, common notions, and derived propositions.
- Definitions:
  - thought, idea
  - objective reality, formal reality
  - substance, mind, body,
  - God, essence, distinctness
- Definition 10: Two substances are said to be really distinct from one another when each of them can exist without the other (95)
- Definition 9: When we say that something is contained in the nature or concept of something, this is the same as saying that it is true of that thing or that it can be affirmed of that thing (95).
  - Caterus: the concept of a necessarily existing lion contains existence necessarily, without entailing that there exist any lions.
- Definitions 1 and 2: “By the word “thought” I include everything that is in us in such a way that we are *immediately aware* of it... By the word “idea” I understand that form of any thought through the immediate perception of which I am *aware* of that very same thought “(94).
  - Unconscious thought
  - Blindsight

The rest of the synthetic version

- Seven postulates:
  1. Frailty of the senses
  2. Security of pure thought
  3. Self-evidence of logic, including the logic of causation (but see the Common Notions, as well)
  4. Connection between ideas and objects (compare to Definition IX)
  5. The idea of God includes necessary existence.
  6. Contrast clear and distinct perception with obscure and confused perception
  7. Security of clear and distinct perceptions
- Ten common notions:
  1. We can ask about the cause of any thing.
  2. Each instant is independent of every other, so that creation and preservation are indistinct.
  3. Nothing can be uncaused.
  4. Whatever reality is in a thing is formally or eminently in its first cause.
  5. Our ideas require causes which contain formally the reality which exists objectively in the ideas.
  6. There are degrees of reality: accidents, finite substances, infinite substance.
  7. Our free will aims infallibly toward the good.
  8. Whatever can make what is greater can make what is less.
  9. It is greater to create (or preserve) a substance than an accident.
  10. The ideas of all objects contain existence; only the idea of a perfect object contains necessary existence.
- Propositions
  1. Ontological argument
  2-3. Cosmological arguments
  4. Distinction of mind and body

Compare the Second Replies to the *Meditations*.

- Where's the cogito?
- Meditations:
  - Cogito
  - God
  - Clarity and Distinctness
  - Free Will
  - Mathematics
  - Mind/Body distinction
- The synthetic version hardly mentions mathematics or the cogito.

Locke

- Also seeks firm foundations, and clear and distinct knowledge
- Bases all knowledge on sense experience
- The human mind starts as a tabula rasa
- Locke avoids relying on Descartes's contentious proofs of God's existence, his allegations about the connections between ideas and objects, about formal and objective realities, and about causation.
- "These simple ideas, the materials of all our knowledge, are suggested and furnished to the mind only by those two ways above mentions, viz. sensation and reflection" (Locke, 34).
- Hume: "But though our thought seems to possess this unbounded liberty, we shall find upon a nearer examination that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience" (*Enquiry*, §2).

Building a smaller house

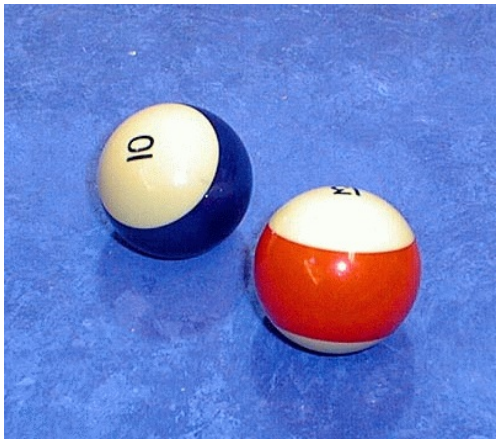
- Berkeley denied the existence of a material world.
- Hume denied any knowledge of God, and other metaphysical claims.
- “When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume--of divinity or school metaphysics, for instance--let us ask, Does it contain any abstract reasoning concerning quantity or number? No. Does it contain any experimental reasoning concerning matter of fact and existence? No. Commit it then to the flames, for it can contain nothing but sophistry and illusion” (*Enquiry*, §12).

Hume's widespread and profound skepticism

- Scientific generalizations which do not limit themselves to past observations go beyond sense evidence.
- Physical laws like Newtonian gravitation, or the gas laws, go beyond experimental evidence.
- We have no sense impressions of causal connections

The problem of induction

- Here is an instance of the problem:
  - I1. I have seen one billiard ball strike another many times.
  - I2. Each time the ball which was struck has moved, motion was transferred.
  - IC. So, the struck ball will move this time.
- The conclusion of this argument does not follow from the premises.
- We can add a third premise ensuring the uniformity of nature.
  - I3. The future will resemble the past.



On the smaller empiricist house

- By limiting the extent of what we call knowledge, the empiricists improved their chances of deriving all knowledge from sense experience.
- But, empiricist principles deny that we have very much knowledge at all.
- Perhaps the most secure area of knowledge, mathematics, seems most distant from sense experience.
- Mathematics seems especially distant from sensation in the post-Cartesian world, since the development of analysis led to algebra replacing geometry as the foundation of mathematics.
- Descartes over-reached on his foundation, but was able to build a massive structure, including all of mathematics and the new science, as well as the old religion.
- The empiricists appear to have a firmer foundation, but a smaller edifice.