General Philosophy

Dr Peter Millican, Hertford College

Lecture 1:
Historical Background Part 1
What is “General Philosophy”?

- Some central issues of epistemology (“What can we know?”) and metaphysics (“What is the nature of things?”).
- Illustrates how philosophy is done: types of arguments, methods of enquiry etc.
- Historical focus: all but one of the topics (Knowledge) are introduced through the writings of “Classical” philosophers of the 17th and 18th centuries.
Why Study Philosophy Historically?

- How the agenda got set: when and why did these problems become important?
- Great original thinkers, writing for a general audience: so their ideas are profound, and they don’t take too much for granted.
The Value of Historical Perspective

- Philosophical ideas tend to have broad and deep interconnections.
- Studying classic “battles of ideas” enables us to view these interconnections in context and with the perspective of history.
- Many classic themes recur throughout the history of thought, sometimes hidden under the surface of contemporary debate.
- Ignoring the past can make us slaves of fashion, and blinker us to other options.
The Topics (1)

- **Scepticism**: Descartes’ evil genius, Locke’s veil of perception
- **Knowledge**: Responding to scepticism
- **Perception**: Locke’s representative theory of perception, Berkeley’s criticisms
- **Primary and secondary qualities**: Boyle and Locke’s theory, Berkeley’s criticisms
- **Induction**: Hume’s sceptical argument, and his denial that nature is “intelligible”
The Topics (2)

- **Free Will**: Hobbes’ and Hume’s compatibilism, and their naturalistic view of man as part of nature

- **Mind and Body**: Descartes’ dualism, various philosophers on the limited powers of matter and their religious implications

- **Personal Identity**: Locke’s attempt to ground this independently of “spiritual substance”
The Birth of Philosophy

The ancient Greeks, distinctively, aimed for rational understanding independent of religious tradition.

Many different philosophers and “schools”:
- Various “Pre-Socratics” (c. 600 - 400 BC)
- Plato and his *Academy* (387 BC -)
- Aristotle (pictured) and his *Lyceum* (335 BC -)
- Pyrrhonian sceptics (c. 320 BC -)
- Epicureans (c. 307 BC -)
- Stoics (c. 300 BC -)
The Institution of Scholasticism

- Roman Empire became Christianised:
  - Pagan temples and libraries destroyed 391 AD;
  - Non-Christian “schools” closed down 529 AD.

- Plato and Aristotle adopted:
  - Christian Platonism (e.g. Augustine 354-430)
  - Christian Aristotelianism (e.g. Aquinas 1225-74)

- The Christian Aristotelian worldview became dominant in the medieval monastic schools, hence “Scholasticism”.
Aristotle’s Universe

- Fixed Stars
- Saturn
- Jupiter
- Mars
- Sun
- Venus
- Mercury
- Moon
- Fire
- Air
- Water
- & Earth
Rediscovery of the Classics

Ancient texts survived in the Byzantine Empire, or in the Arabic world.
- Manuscripts brought West when the Ottoman Turks attacked, fostered the development of Humanism in Renaissance Italy.

Printing (invented 1450) gave them much wider circulation, e.g.:
- Lucretius (rediscovered 1417, printed 1486)
- Sextus Empiricus (translated into Latin 1562)
Upheaval and Instability

Many factors contributed to Western instability in the period 1500-1650, e.g.:
- growth of population and trade;
- discovery of the New World (America etc.);
- consequent economic disruption;
- realisation that ancient maps etc. were wrong;
- suggestions of cultural relativity;
- technology of gunpowder and consequent centralisation of power.
The Hereford “Mappa Mundi” (c. 1290) based on the writings of Orosius, a pupil of Saint Augustine, part of a compendium of knowledge to refute the pagans
The Reformation

- Luther rebelled against the Church of Rome, starting in 1517;
- Many parts of Europe (especially in the North) became Protestant;
- Savage wars throughout Europe arising from religious differences (e.g. Thirty Years’ War 1618-48, English Civil War 1639-51);
- Peace “of exhaustion” at Westphalia, 1648 led to greater religious toleration.
The Problem of the Criterion

A sceptical problem raised by Sextus Empiricus in his *Outlines of Pyrrhonism*:

*How can any criterion of reliable knowledge be chosen, unless we already have some reliable criterion for making that choice?*

– Roman Catholics appeal to tradition (Church, Bible, Aristotle); Protestants appeal to the believer’s personal response to the Bible;

– How to know who is right? (Maybe neither?!)

– How to know who is right? (Maybe neither?!)
Aristotelian Science

Elements and Natural Motions

- Four elements: fire, air, water, and earth.
- Fire/air naturally move upwards, water/earth downwards, each seeking its natural place.
- Heavier things fall faster, in proportion to weight.

A Teleological Physics

- Strivings, horror of a vacuum etc.
- Everything strives towards the eternal, hence heavenly bodies move in circles, and must be made of a fifth element, aether.

(Physics, IV 8)
Intelligibility, or Empty “Explanation”? 

“Why does water rise up a siphon pipe?”  
“Because Nature abhors a vacuum.”

“Why does opium make one sleep?”
“Because it contains a dormitive virtue, whose nature is to make the senses soporific.”

Molière (1673)
Galileo’s Experiments

Aristotle couldn’t explain:
- the flight of a cannonball;
- a sledge sliding on flat ice;
- water dripping from a gutter.

Galileo was reported (by Viviani) to have performed another critical experiment:
- dropping a large and a small ball together from the Leaning Tower of Pisa. Contrary to Aristotle, they fell at similar speeds.
Galileo’s Telescope

The telescope was invented in Holland in 1608, and Galileo made his own in 1609.

What he saw with it refuted Aristotle’s cosmology:

– Mountains and valleys on the moon;
– Four moons orbiting around Jupiter;
– Innumerable stars too dim for the naked eye;
– Phases of Venus, sometimes “full” (implying that it is then on the opposite side of the Sun).
Venus as considered by Ptolemy
Aristotelian science was based on purposes, or “final” causation:
- Things *strive* to reach their natural place, or to avoid abhorrent situations (e.g. a vacuum);

Galileo preferred “efficient” causation:
- The outcome depends on where the causal sequence happens to lead.
- Matter doesn’t *strive*; it is *inert*, remaining in its state of motion or rest unless acted on.
The “Mechanical Philosophy”

The paradigm of efficient causation is via *mechanical* contact:

– Interaction between contiguous particles of matter by pressure and impact.

Compared with pseudo-explanations involving “occult” qualities (horror of a vacuum, dormitive virtue etc.), this seems:

– genuinely *explanatory*;
– genuinely *intelligible*. 
Inertia and the Orbiting Heavens

Thus Galileo claimed, against Aristotle:

– Matter does not “strive”.
– Left to itself matter is “inert”: it continues in a uniform state of rest or motion until acted upon by a force (e.g. pushed along).
– The heavenly bodies are not composed of a special “aether”, but of ordinary matter, and therefore subject to the same laws.

BUT: why then does the Moon orbit the Earth, and the planets orbit the Sun?
The Father of Modern Philosophy

- Attacks Aristotlian tradition using the sceptical problem of the criterion;
- Builds on Galileo’s mechanical philosophy grounding it on a theory of matter’s “essence”;
- Makes room for mind as an “essence” radically distinct from matter.
Descartes – Epistemology

- Seeks reliable anti-sceptical basis for knowledge, not appealing to authority:
  - “I think therefore I am”, provides a first example of something known, and reveals what is needed: clear and distinct perception.
  - Then prove clearly and distinctly that the idea of God implies a perfect cause: i.e. God.
  - A perfect God cannot deceive, so our faculties must be reliable if used properly.
  - Hence the importance of Descartes’ Method.
Descartes – Science

Descartes was a major natural philosopher:

- First to explain the rainbow in detail;
- Discovered co-ordinate geometry;
- Suggested circulation of the blood;
- Concluded that the Earth orbits the Sun.

His most important intellectual legacy:

*The ideal of a mechanistic science of the world, based on the simple mathematical properties of extended matter.*
Descartes and Essences

- The real qualities of matter follow from its essence, simple geometrical *extension*.
  - This essence, known through God-given innate ideas, implies mathematical laws of motion.
  - Bodies are *passive*, remaining in the same state (*inertia*) until a force is applied.
  - Qualities perceived by the senses (Locke’s “secondary qualities”) are observer-dependent.

- Mind is a distinct, *active* *immaterial* substance, whose essence is *thinking*.
Descartes’ Physics

Since matter’s essence is extension, non-material extension is impossible. Thus:

– The physical world is a plenum (no vacuum);
– All motion must take the form of circuits of matter within the plenum.
– This can be expected to give rise to vortices, circular motions like whirlpools.
– A vortex can explain why the planets orbit the Sun without shooting off under inertia.