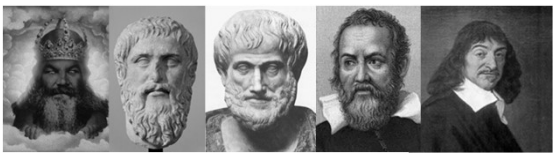
Oxford Lectures on General Philosophy, 2018-19

General Philosophy

Prof. Peter Millican, Hertford College

Lecture 1: Historical Introduction, from Genesis to Descartes



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 six topics are introduced through the writings of great philosophers of the 17th and 18th centuries: Descartes, Locke, and Hume.

2

2

The Role of These Lectures

- Much of your learning in Oxford will be structured around small (typically paired) tutorials, developing your philosophical skills through writing essays and discussing your ideas about specific topics.
- Lectures complement tutorials by providing *context*, *wider coverage*, and showing how *topics link together* within a broader framework.
- The topics in General Philosophy are especially fundamental, drawing on – and contributing to – world-views that go back to antiquity and remain of tremendous interest in our lives.

3

3

Historical Understanding

- From the *Examination Regulations*:

  "Candidates will have the opportunity, but will not be required, to show first-hand knowledge of Descartes' *Meditations* and Hume's *An Enquiry concerning Human Understanding*."
- A Common Theme in Examiners' Reports:

  "few students chose to answer questions in ways that displayed any significant acquaintance with historical material."

4

4

Readings from Descartes, Hume, Locke

- Descartes is listed for:
  - Knowledge and Scepticism
  - Mind and Body
  - God and Evil
- Hume is listed for:
  - Knowledge and Scepticism
  - Induction
  - Free Will
  - God and Evil
- Locke is listed for Personal Identity

5

5

The Topics In Historical Context (1)

- **Knowledge and Scepticism**: Descartes' evil genius, Locke's veil of perception, Hume's mitigated scepticism
- **Induction**: Hume's sceptical argument, and his denial that nature is "intelligible"
- **God and Evil**: Descartes' Ontological Argument and appeal to God's non-deceitfulness, Hume's attacks on theism through the Problem of Evil

6

6

Oxford Lectures on General Philosophy, 2018-19

The Topics In Historical Context (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 aim to ground this independently of "spiritual substance", Hume's denial of the unified self

7

7

Previous Lectures (from 2009-10)

- These are freely available from:
  podcasts.ox.ac.uk/series/general-philosophy
  www.youtube.com/course?list=EC2FEB728FF960FBD9
- Go to these for:
  - More on the historical background;
  - Basic material on topics except *God and Evil* (which replaced *Perception* and *Primary/Secondary Qualities*).
- The current lectures aim to *complement* the earlier series, with more "thematic" material and links with other Oxford disciplines.

8

8

Why Bother with Philosophy's History?

(for more detailed discussions focusing on Hume, see www.davidhume.org/papers/millican/2011_TPM.pdf and 2011_Learning_from_300_years_of_Hume.pdf).

- How the agenda got set: when and why did these problems become important?
- Learning the labels: "Cartesian dualism", "Humean compatibilism", "Pyrrhonian", "Cartesian" or "Humean" scepticism etc.
- Great original thinkers, writing for a general audience: so their ideas are profound, and they don't take too much for granted.

9

9

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.

10

10

Changing Paradigms

- Here we focus on changes in *ways of understanding the world and our place in it*, thus mainly on *theoretical* rather than *practical* philosophy.
- There is also an interesting story to be told about changes in our ways of understanding morality, religious and political authority etc.
  - In all these respects, philosophical thinking has been, and remains, a huge influence on human history (indeed, possibly *the greatest influence in changing the human world since Medieval times*).

11

11

Philosophy and Theology

- Most philosophical thought, across most of history, has been connected with religion.
  - Religion seems to be almost universal in human society, and culturally very influential.
  - Religions typically emphasise *orthodoxy:* only those who believe the right thing will achieve salvation (there are also obvious potential political motivations here …).
  - Christianisation of the Roman Empire suppressed pagan philosophical schools, except that Plato (and later, Aristotle) were integrated into Christian theology.

12

12

"In the Beginning"

- *Genesis* chapter 1 explains how God created:
  - Day 1: earth, waters, light, darkness
  - Day 2: sky, separating waters above and below
  - Day 3: dry land, plants
  - Day 4: sun, moon, stars
  - Day 5: sea creatures, birds
  - Day 6: land animals, humans –

    "Then God said, 'Let us make humankind *in our image, according to our likeness*; and let them have dominion over [all animals] … So *God created humankind in his image, in the image of God he created them*; male and female he created them."

13

13

Animals Created for Man

- *Genesis* chapter 2 gives a different order:

  "In the day that the Lord God made the earth and the heavens, when no plant of the field was yet in the earth … – then the Lord God formed man from the dust of the ground … And the Lord God planted a garden in Eden … and there he put the man whom he had formed. Out of the ground the Lord God made to grow every tree … Then the Lord God said, 'It is not good that the man should be alone; I will make him a helper as his partner.' So out of the ground the Lord God formed every animal of the field and every bird of the air … but for the man there was not found a helper as his partner." *[and so to provide this need, God created Eve from Adam's rib]*

14

14

One Kind of "Natural Philosophy"

- We naturally think *teleologically* – in terms of *purposes*: so theism comes naturally.
- If God designed the world for us, and created us "in His image", then we should be well suited to understand its workings.
- The philosophies of Plato and Aristotle fitted nicely into this theological picture, interpreting our place in the world (e.g. origins, perception, actions, destiny) accordingly.

15

15

"Promiscuous Teleology"

- Consider the question: "Why do mountains exist? Is it …
  a) to give animals a place to climb, or
  b) because volcanoes cooled into lumps?"
- Young children prefer the teleological answer. So do Alzheimer's patients, their education having been stripped away by the disease.
- Likewise "Why is the sun in the sky? To keep us warm." "What are trees for? To provide shade." "What is rain for? To give us water for drinking."

16

16

A World We Can Understand

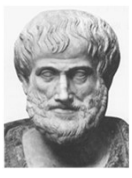
- Two Examples:
  - Plato's theory of Forms implies that imperfect earthly things have perfect counterparts which somehow constitute their essential nature. These Forms are perfect and intelligible to the mind: the world is to be understood *by reason*.
  - Aristotle's theory of perception involves the sense organ receiving the "perceptible form" (but not the matter) of what is perceived, thus itself becoming like the perceived object.

17

17

A World Full of Purpose

- Purposive Design (God)
  - Things in the world (e.g. animals, plants, minerals) take the form they do because they were ***designed*** to be that way.
- Purposive Action (Aristotle)
  - Things in general (humans, stones, water, fire, planets etc.) behave as they do because they are striving to achieve some desired state, or to avoid some abhorrent situation.



18

18

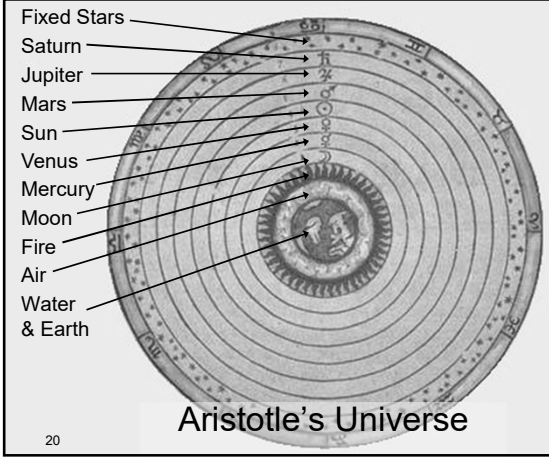
Oxford Lectures on General Philosophy, 2018-19

Aristotelian Science

- Elements and Natural Motions
  - Four terrestrial elements: earth, water, air, fire.
  - Fire/air naturally move upwards, water/earth downwards, each seeking its natural place.
  - Heavier things fall faster, in proportion to weight. *(Physics, IV 8)*
- A Teleological Physics
  - Seekings and strivings, horror of a vacuum etc.
  - Things ultimately strive towards the eternal, hence heavenly bodies move in circles, and must be made of a fifth element, *aether*.

19

19



Aristotle's Universe

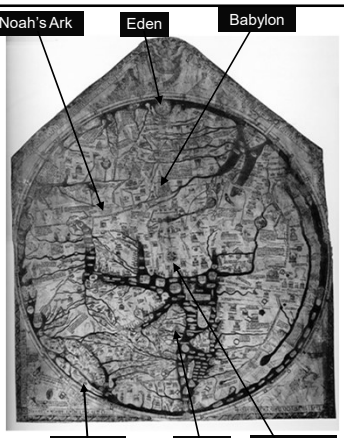
20

20

Religious Stagnation

Hereford's *Mappa Mundi* (c. 1300) was based largely on the writings of Paulus Orosius (c. 375-420), a pupil of Saint Augustine from Gallaecia (now Spain), who wrote *Seven Books of History against the Pagans*.

Thus at the beginning of the 14th century, a work 900 years old and based on ancient myths was still taken as authoritative.



21

21

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;
  - rediscovery of "heretical" classical texts.

22

22

The Reformation

- The Reformation added to this crisis:
  - Luther rebelled against the Church of Rome, starting in 1517;
  - Much of Europe (especially northern) became Protestant; this provoked the "Counter-Reformation" (e.g. the Roman Inquisition).
  - 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.

23

23

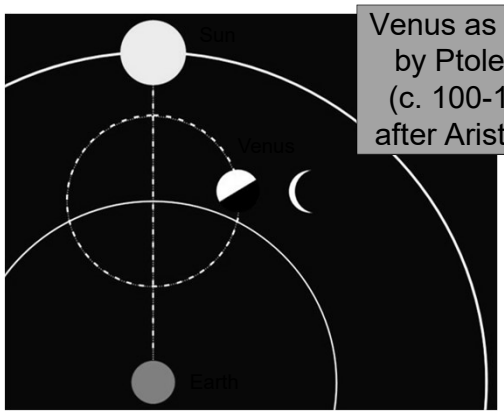
Another Kind of "Natural Philosophy"

- Astronomical motions have been of great interest for at least 4,000 years, used both for the calendar and for astrology.
- The planets move relative to the background stars, and not in straightforward ways.
  - Periodically they exhibit apparent "retrograde motion" (e.g. Mars will appear to circle backwards as Earth passes it on the inside, as we now know);
  - Venus, the "morning star" or "evening star", is never more than around 45% away from the Sun.
  - This can be modelled quite well with "epicycles" …

24

24

Oxford Lectures on General Philosophy, 2018-19

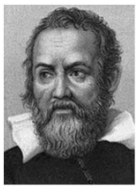


Venus as seen by Ptolemy (c. 100-170, after Aristotle)

14

25

Galileo's Revolution



- His new telescope (1609) showed:
  - Mountains/valleys on the moon;
  - Four moons 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).
- Aristotle's mechanics also fails to explain:
  - the flight of a cannonball;
  - a sledge sliding on flat ice;
  - the speed at which bodies fall.

26

26

The Mechanical Universe

- Aristotelian science involved five elements, each with their natural place and hence internal purposes (or "final" causation):
  - Things *strive* to reach their natural place, or to avoid abhorrent situations (e.g. a vacuum);
- Galileo considered heavenly matter to be the same as earthly matter, and subject to external "efficient" causation:
  - Matter is *inert*, rather than active, and how it behaves depends on the causes that act on it.

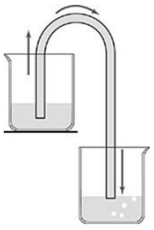
27

27

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, *Le Malade Imaginaire* (*The Imaginary Invalid*),1673

28

28

Mathematics and Explanation

- For thinkers from Galileo to Newton, the paradigm of efficient causation becomes *mechanical* contact, and motions occur according to *mathematically calculable* laws.
- Compared with pseudo-explanations involving "occult" qualities (horror of a vacuum, dormitive virtue etc.), this seems:
  - genuinely *explanatory*;
  - genuinely *intelligible*;
  - precisely *predictive* and *testable*.

29 .

29

Inertia and the Orbiting Heavens

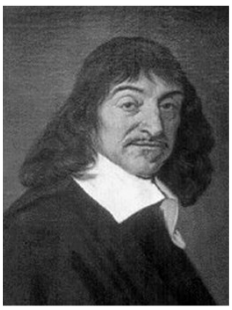
- Galileo claimed, against Aristotle:
  - Matter does not "strive"and left to itself it is *inert*: it continues in a uniform state of rest or motion until acted upon (e.g. pushed or hit).
  - The heavenly bodies are not composed of a special "aether", but of ordinary matter, and therefore subject to the same laws.
- BUT: why then does the Moon orbit the Earth, and the planets orbit the Sun?

30

30

Oxford Lectures on General Philosophy, 2018-19

The Father of Modern Philosophy



- Attacks Aristotelian tradition
  using sceptical arguments with ancient roots;
- 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 (thus effectively removing it from physical science).

31

31

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.
- Arguably his greatest intellectual legacy:
  The ideal of a mechanistic science of the world, based on the simple mathematical properties of extended matter.

32

32

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. (*Meditation* 2, AT 24-5)
  - All I can know of myself initially is that *I am a thinking thing*. (*Meditation* 2, AT 25-8)
  - Pondering a piece of wax reveals that I can understand the nature of matter only through my intellect, not senses. *Matter's essence is geometrical extension*. (*Meditation* 2, AT30-32)

33

33

- My certain knowledge of my own existence reveals what is necessary for such certain knowledge: *clear and distinct perception*. (*Meditation* 3, AT 35)
- Arguments based on clear and distinct perception then enable me to prove that my idea of God implies a perfect cause: i.e. God. (*Meditations* 3 and 5)
- My idea of God was divinely implanted, and thus innate. (*Meditation* 3, AT 51-2)
- A perfect God cannot deceive, so our faculties must be reliable *if used properly*. So if I make mistakes, that is my fault, not God's. (*Meditation* 4)

34

34

Descartes and Essences

- The real qualities of matter follow from its essence, simple geometrical *extension*.
  - This essence, known by a God-given innate idea, implies mathematical laws of motion.
  - Bodies are passive, remaining in the same state *(inertia)* until a force is applied.
  - Qualities perceived by the senses (later called "secondary qualities") are observer-dependent.
- Mind is a distinct, active *immaterial* substance, whose essence is *thinking*.

35

35

Replacing Aristotle

- 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 explains why the planets orbit the Sun without shooting off under inertia. There is now a plausible theory to replace Aristotle's physics!

36

36

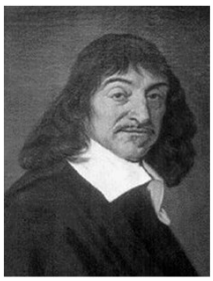
General Philosophy

Prof. Peter Millican, Hertford College

Lecture 2: Matter, Mind, and Humanity, from Descartes to the Present

37

Descartes' Synthesis



- Physical Theory
  Denies Aristotelian teleology ("strivings" etc.); matter is passive, and its essence is simply *extension*. Hence space is a *plenum*, causing movement by *vortices*.
- Theory of Mind
  Mind's essence is *thinking*; hence it is an entirely distinct substance from matter (thus making room for immortality).

38

38

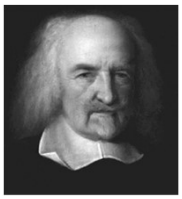
Dualism versus Physicalism

- *Cartesian Dualism* (named after Des Cartes) is the view that:
  - Physical bodies consist of *material substance*.
  - Minds are a quite distinct *immaterial substance*.
- *Materialism* – or *Physicalism* – is the view that there is only one kind of substance, namely material or physical substance.
  - But this is compatible with a distinction between physical and mental *properties.*

39

39

The Materialist Monster of Malmesbury



- Thomas Hobbes (of Magdalen Hall = Hertford College) was also a plenist, but denied that mind is immaterial (i.e. "incorporeal").
- Only matter exists, and to suppose otherwise is a contradiction:

"When men make a name of two Names, whose significations are contradictory and inconsistent", the result is "but insignificant sounds", "as this name, an *incorporeall body*, or (which is all one) an *incorporeall substance*". *Leviathan* ch. 4

40

40

Opposing Materialism

- The main argument against Hobbist materialism was to insist on the limited powers of "brute matter", which:
  - is necessarily *passive* or *inert* (as demonstrated by the phenomenon of inertia);
  - in particular, cannot possibly give rise to mental activity such as perception or thought.
- This point was pressed by Ward (1656), More (1659), Stillingfleet (1662), Tenison (1670), Cudworth (1678), Glanvill (1682), Locke (1690).

41

41

- But this argument assumes that we can understand the powers of matter "a priori".

"A belief or claim is said to be justified *a priori* if its epistemic justification, the reason or warrant for thinking it to be true, does not depend at all on sensory or introspective or other sorts of *experience*; whereas if its justification does depend at least in part on such experience, it is said to be justified *a posteriori* or *empirically*. This specific distinction has to do only with the justification of the belief, and not at all with how the constituent concepts are acquired …"

Cambridge Dictionary of Philosophy

42

42

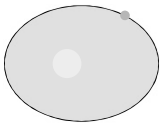
Boyle's Corpuscularianism

- Robert Boyle, pioneer of chemistry and champion of the "Mechanical Philosophy", speculated (in Oxford) that material substances are composed of imperceptible "corpuscles" made of "universal matter" which is both *extended* and *impenetrable*.
- This allowed for *penetrable extension* – i.e. empty space – in gaps between corpuscles and larger gaps between objects. We get a theory of "atoms and the void" (while avoiding the heretical word "atomism!").

43

43

Meanwhile, in the Heavens …



- In 1627 Johannes Kepler published tables enabling the calculation of planetary positions to an accuracy which turned out to be over 1000 times better than any previous method.
- Kepler's method is based on the hypothesis that each planet moves in an *ellipse* around the Sun (which is at one "focus" of the ellipse).
- The method's sheer accuracy led over time to general acceptance of that hypothesis.

44

44

Newtonian Physics

- Isaac Newton (1687) postulated a force of gravity acting across the void, with a magnitude inversely proportional to the square of the distance between two objects.
- He proved that if bodies accelerate in proportion to the total force acting on them, then a small body will orbit elliptically around a much larger, as observed.
- The same equations work for earthly cannonballs (*contra* Aristotle); moreover a vortex cannot generate elliptical motion (*contra* Descartes).

45

45

Gravitation and Intelligibility

- Newtonian gravity acts at a distance with no intermediate mechanical connexion.
  - But this seems deeply "unintelligible", something that could not have been expected a priori.
  - Descartes had objected to the idea of gravity as "occult": one body would have to "know" where the other was to move towards it.
  - If material bodies can act in this weird way, how can we be sure that they are unable to generate other powers, such as thought?

46

46

Newton's Methodological Instrumentalism

- Newton's public response to the objection:
  "Hypotheses non fingo"
  - "I feign no hypotheses": there's no obligation to invent speculations about how gravity operates (at least until more evidence comes to light giving a basis for more than *mere* hypothesis).
  - If the gravitational equations (etc.) correctly describe the observed behaviour of objects, then that theory should be accepted whatever the unperceived underlying reality might be.

47

47

Pushed Away From Intelligibility

- Note how it is *empirical discovery* that has pushed us progressively further from our "intuitive" and "natural" understanding:
  - Aristotle started from natural purposiveness;
  - Galileo's discoveries refuted Aristotle;
  - Descartes postulated vortices in a world governed by natural mechanism;
  - Kepler's and Newton's calculations refuted the vortex theory, requiring the postulation of an apparently "unintelligible" gravitational force.

48

48

Oxford Lectures on General Philosophy, 2018-19

And Yet Further …

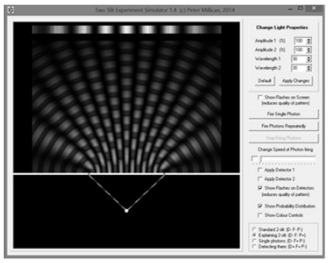
- Einstein's General Relativity (1915)
  - Space is gravitationally "curved", straining our geometrical "intuition" to new limits.
- Quantum Mechanics (1925)
  - Fundamental particles don't work at all as we (or Newton) would have expected: their behaviour is *describable*, but not "intelligible".
  - So although physics retains the goal of accurate *prediction*, and *explanation* (of a sort), it seems somehow to give up on *making sense of things*.

49

49

The Two-Slit Experiment

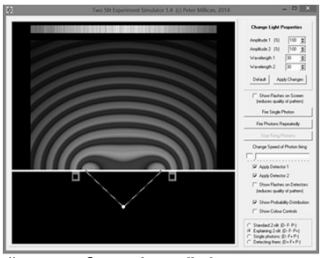
- A "coherent" light-source (e.g. a laser) shines through two slits, illuminating a screen behind.
- Bands are seen, indicating wave interference.
- This occurs even if the light shines one "photon" (a minimal quantity of light) at a time.



50

50

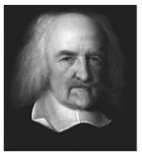
- If we attempt to detect each photon, we find it only ever going through one of the slits – never both at once.
- But applying a detector removes the banded interference pattern!
- This can be "understood" mathematically in terms of interfering "wave-functions" that determine probability of detection, but it does not "make sense" in terms of familiar things.



51

51

Varieties of Physicalism



- Mechanist Materialism
  - Everything that exists consists of matter, spatially extended uniform solid "stuff" whose causal interactions are purely mechanical.
- Post-Newtonian Materialism
  - Matter's causal interactions are mediated by "forces" which are calculable, but not purely mechanical.
- Modern Physicalism
  - There is no uniform material "stuff", but various fundamental particles (some massless or pointlike) with properties like "charge", "spin", even "strangeness", within an indeterministic space-time continuum.

52

52

Physicalism: Hempel's Dilemma

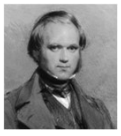
- How is "Physicalism" to be understood?
  - Everything in the universe is "physical" *in the sense of conforming to current physical theory*.
    - This is obviously false, given that current physics is certainly incomplete (and in fact has inconsistencies, e.g. Between Quantum Mechanics and General Relativity).
  - Everything in the universe is "physical" *in the sense of conforming to a completed future physical theory*.
    - But how do we know what a future theory might contain? And if we are talking about a supposed *true* "completed" theory of everything, then the claim risks triviality: "everything in the universe conforms to the true theory".

53

53

Humanity's Place in the World

- We shall return to the question of Dualism and Physicalism in a later lecture.
- We turn now to another respect in which our understanding of the world – and indeed our *ways of understanding* the world, has profoundly changed as a result of empirical discoveries.
- Here the key figure is Charles Darwin, whose book *On The Origin of Species* was published in 1859, presenting powerful arguments derived from many years of personal research.



54

54

Oxford Lectures on General Philosophy, 2018-19

Humans and Animals

- Many similarities between humans and animals are obvious enough, but before Darwin they were generally considered radically distinct:
  - According to *Genesis*, man is made "in the image of God", so we are a step or two below God in the hierarchy of creation; animals are significantly lower.
  - According to Aristotle, man is uniquely a *rational* animal, setting us apart from all others.
  - The Aristotelian "ladder of nature" was systematised in the popular concept of the "Great Chain of Being"
  - According to Descartes, humans have an immaterial rational mind; animals are essentially machines.

55

55

The Great Chain of Being

Aristotle's *ladder of nature* systematised by Plotinus (205-70) – a plenitude of forms from God's creation:

Pure spirits: angels;

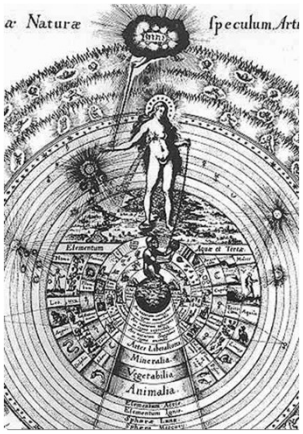
Heavenly bodies;

Humans: kings, princes, nobles, men, women;

Animals: wild, domestic;

Plants: trees, others;

Minerals: precious stones, metals, others.



56

56

Descartes on Animals as Machines

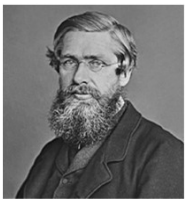
"… the beasts … have no reason at all. … they have no intelligence at all, and … it is nature which acts in them according to the disposition of their organs." (*Discourse on the Method* 5, CSM 1 140-1)

"although [animals] lack reason, and perhaps even thought, all the movements of the spirits and of the gland which produce passions in us are nevertheless present in them too, though in them they serve to maintain and strengthen only the movements of the nerves and the muscles which usually accompany the passions and not, as in us, the passions themselves." (*Passions of the Soul* 50, CSM 1 348)

57

57

Darwin and Wallace



- Darwin was slow to publish, aware that evolution would be religiously controversial. He did so only after Alfred Russel Wallace wrote to him in 1858, having independently come up with the key idea.
- Both Darwin and Wallace attributed their insight to reading the work of clergyman Thomas Malthus …

58

58

Thomas Malthus on Population

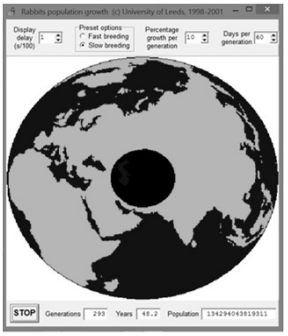
- *An Essay on the Principle of Population* (1798) argued that without widespread "moral restraint" – postponement of marriage and strict celibacy outside marriage – a population crisis would be inevitable.
  - Even if the food supply increases constantly year by year, the *geometrical* (i.e. exponential) increase of population will eventually outgrow it.

59

59

The Power of Exponential Growth

- Imagine a colony of rabbits whose population grows 10% every 60 days.
- Starting from 100, in less than 53 years they could cover the entire land area of the Earth, with one per square foot!



60

60

Oxford Lectures on General Philosophy, 2018-19

Natural Selection

- If animals or plants have these features:
  - Characteristics are largely inherited, with some random variation (e.g. taller parents tend to have taller offspring);
  - Some of these characteristics are relevant to survival and reproduction (e.g. the strongest and fastest have more offspring);
  - They live in a competitive environment (e.g. resources are scarce or there are predators, so only a proportion of offspring survive);

  "natural selection" is almost inevitable.

61

61

Coevolution, Sexual Selection

- Evolution can be especially fast if two species interact, e.g. predator and prey.
  - The slowest prey get eaten; the slowest predators starve, or fail to attract mates …
- In sexually reproducing species, if females choose their mate according to particular characteristics (e.g. peahens choosing peacocks with impressive tails), this can drive a similar "runaway" process.

62

62

Evidence for Evolution

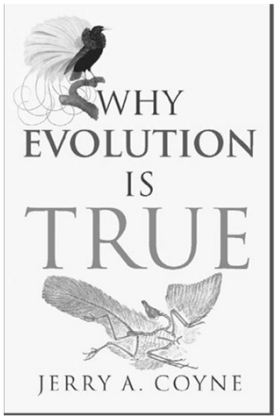
- Darwin's own arguments for evolution were very strong, but the evidence base has grown and is now overwhelming, coming from:
  - the fossil record;
  - vestiges (especially where maladaptive);
  - embryology and development;
  - biogeography (distribution of animals and fossils);
  - genetics (DNA evidence of relationships etc.).
- See for example "Evidence of common descent" in *Wikipedia*, and the links it provides.

63

63

For More …

Jerry Coyne's book gives an excellent summary of the evidence for evolution, and I am grateful to him and the book's artist, Kalliope Monoyios, for the following images.



64

64

Transitional Forms: Fish to Amphibians

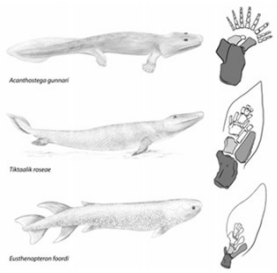


Figure 8, p. 39

Tiktaalik roseae (centre), discovered in 2004, is intermediate in skeletal structure between an early lobe-finned fish (bottom) and a land-dwelling tetrapod (top).

65

65

Dinosaurs to Birds

Archaeopteryx (centre), discovered in 1860, is skeletally intermediate between a small dinosaur (such as *Compsognathus*, bottom) and a modern bird (*Chicken*, top).

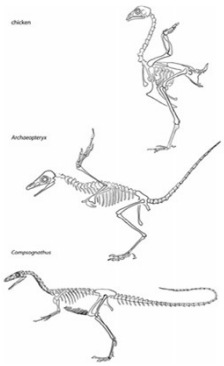


Figure 9, p. 44

66

66

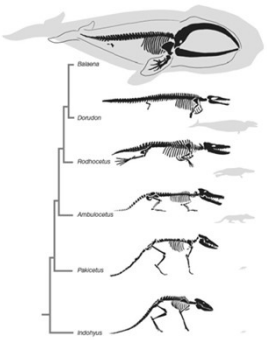


Figure 12, p. 54

A number of transitional fossils have been found between *Indohyus* (bottom), an ancient even-toed ungulate (related to the pig, camel, hippo etc.), and the modern baleen whale (top), with its vestigial pelvis and hindlimb.

67

67

Humans and Apes

A human skull is at top left, followed by *Homo habilis*, *Australopithecus afarensis*, *Sahelanthropus tchadensis*, *Paranthropus boisei*, and chimpanzee.

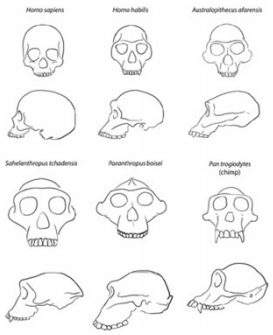


Figure 25, p. 217

68

68

Biogeography

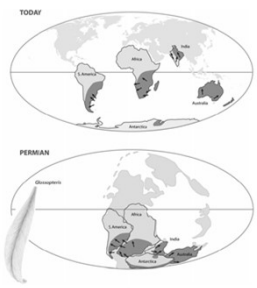


Figure 21, p. 103

Continental drift (for which there is huge geological evidence) explains, for example, the biogeography of the ancient tree *Glossopteris* (shaded in modern map above), and glacial scratches in rocks (aligned as arrows) around what was the Permian south pole.

69

69

Bad "Design"

The path of the left recurrent laryngeal nerve in humans is absurd as "design", but explicable through the evolution of part of a fish branchial arch into the mammal larynx, and descent of the sixth aortic arch down into the chest (forcing the nerve to pass all the way down and back up).

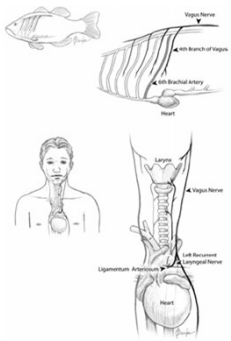


Figure 19, p. 89

70

70

Denial of Evolution on Religious Grounds is Both Wilfully Ignorant ...

... and also extremely problematic for moral reasons. If all of the massive evidence for evolution (in the rocks, our bodies, and even our DNA) is *misleading*, and the world was in fact deliberately created by some agent, then this points strongly towards a deliberate *deception* by that agent. And if our creator is deceptive, then we have no reason to trust any of "His" supposed revelations, through "holy" books, religious experiences, or whatever ...

71

71

The Significance of Evolution

- Similarities between humans and other animals had been obvious before, of course, but evolution implies a *continuity* rather than a distinct hierarchy, putting pressure both on ancient views and on those of "moderns" such as Descartes.
- It also impacts on religious views, regarding God's purposes in creation, and immortality.
- Evolution also casts doubt on our rational connection with the world (on which more later),
- … yet at the same time yields a new form of insight and explanation (again, more later).

72

72

Oxford Lectures on General Philosophy, 2018-19

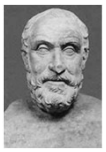
General Philosophy

Prof. Peter Millican, Hertford College

Lecture 3: Scepticism and the Problem of Induction

73

Pyrrho of Elis – Founder of "Pyrrhonian" Scepticism



He taught "agnosticism and suspension of judgement. … universally, he held that there is nothing really existent, but custom and convention govern human action … He led a life consistent with this doctrine, going out of his way for nothing, taking no precaution, but facing all risks as they came, whether carts, precipices, dogs or what not … but he was kept out of harm's way by his friends who … used to follow close after him. … He lived to be nearly ninety. … According to some authorities the end proposed by the Sceptics is insensibility; according to others, gentleness." (Diogenes Laertius II ix)

- The standard term for the aim of much ancient scepticism is "ataraxia", meaning "tranquillity" or "unperturbedness".

74

74

Rediscovery of the Classics

- In the Christianised Roman Empire, ancient schools were closed and books destroyed. But some ancient texts survived in the Byzantine Empire and in the Arabic world.
  - Manuscripts brought West after Constantinople was sacked in the Fourth Crusade (1204) and taken by the Ottoman Turks (1453) fostered the development of Humanism in Renaissance Italy.
- Printing (invented 1450) had a huge impact: e.g. Lucretius' *On the Nature of Things* was rediscovered in 1417, and printed in 1486.

75

75

The Modern Impact of Scepticism

- Sextus Empiricus, *Outlines of Pyrrhonism* (c. 200 AD) was translated into Latin and printed in 1562.
  - Major impact on Michel de Montaigne, who in turn influenced Descartes, Pascal, Bayle, …
- Modern views of perception invited scepticism:
  - For Aristotle, and most medieval scholastics, the sense organ takes on the perceptible *form* of what is perceived (whose *matter* has no effect).
  - Descartes and the moderns see mechanical properties of the object as *causes* of perceptual "ideas"; so *colour* is a *secondary quality*, not resembling the object itself.

76

76

"Cartesian Scepticism"

- Descartes' first *Meditation* famously presents sceptical worries about the external world that is supposedly revealed through the senses:
  - Maybe I am just dreaming, and there is no external world at all. (*Meditation* 1, AT 19)
  - Maybe an evil demon is making illusions of an external world appear to me. (*Med* 1, AT 22-3)
- A modern variant is the hypothesis that I am just a brain in a vat (a "BIV"), fed illusions by a clever scientist manipulating my neurons.

77

77

Solipsism and Its Varieties

- An extreme version of Cartesian scepticism: maybe I am the only thing that exists, and the "external world" (including other people) exists only as an object of my consciousness.
- This is extreme *solipsism.*
  - A more moderate variant maintains that we have *special* knowledge of ourselves in a way that cannot be extended to other things;
  - *Methodological solipsism* involves starting our philosophical investigations from our mental states, understood in isolation from external things.

78

78

Oxford Lectures on General Philosophy, 2018-19

Descartes' Method of Reply

- Descartes uses the sceptical arguments to clear the ground of traditional theories, but claims that his own method can refute them.
  - To achieve certainty, I shall withhold assent from anything that is at all doubtful. (*Med* 2, AT 24)
  - When I consider "I think, therefore I am", it is impossible for me to be mistaken. So I am completely certain of this, at least. (*Med* 2, AT 25)
  - By contemplating this first certainty, I understand that what makes it certain is that I *clearly and distinctly perceive it* to be true. (*Med* 3, AT 35)

79

79

Descartes and God

- Hence I am led to the general rule that *whatever I perceive very clearly and distinctly is true*.
- I clearly and distinctly perceive that God exists, since only a perfect being could be the ultimate cause of my perfect idea of God. (*Med* 3, AT 45)
  - "it is manifest by the natural light that there must be at least as much in the efficient and total cause as in the effect of that cause" (*Med* 3, AT 40)
- A perfect God cannot deceive, so my faculties must be essentially reliable, if I restrict my judgements within proper bounds. (*Med* 4, AT 58)

80

80

The Cartesian Circle

- Descartes seems to be "boot-strapping":
  - proving the existence of God by relying on his mental faculties.
  - then appealing to the existence of God to justify reliance on his mental faculties.
- Isn't this viciously circular?
  - If my faculties might be defective, then how can I trust my proof of the existence of God in the first place? How can <u>any</u> anti-sceptical argument even get off the ground?

81

81

David Hume, The Great Infidel

- Scottish, 1711-76
- *A Treatise of Human Nature* (1739-40) was "an attempt to introduce the experimental method of reasoning" into philosophy.
- He reached notoriously sceptical conclusions, which have provoked philosophical replies ever since (starting with Kant and Reid).
- *Enquiry concerning Human Understanding* (1748) and *Dialogues Concerning Natural Religion* (1779) are on the General Philosophy reading list.

82

82

Antecedent Scepticism

- At *Enquiry* 12.3, before giving his own catalogue of sceptical arguments, Hume describes Descartes as an extreme *antecedent* sceptic:

  "There is a species of scepticism, *antecedent* to all study and philosophy, which is much inculcated by Des Cartes and others, as a sovereign preservative against error and precipitate judgment. It recommends an universal doubt, not only of all our former opinions and principles, but also of our very faculties; of whose veracity, say they, we must assure ourselves, by a chain of reasoning, deduced from some original principle, which cannot possibly be fallacious or deceitful. …"

83

83

Hume's Critique of Descartes

- Hume considers such scepticism to be obviously incurable, and therefore utterly pointless:

  "… But neither is there any such original principle, which has a prerogative above others, that are self-evident and convincing: Or if there were, could we advance a step beyond it, but by the use of those very faculties, of which we are supposed to be already diffident. The Cartesian doubt, therefore, were it ever possible to be attained by any human creature (as it plainly is not) would be entirely incurable; and no reasoning could ever bring us to a state of assurance and conviction upon any subject." (*E* 12.3)

84

84

Oxford Lectures on General Philosophy, 2018-19

Hume's Argument concerning Induction

- Perhaps the most famous and influential argument in English-language philosophy:
  - Three versions, in the *Treatise* 1.3.6 (1739), the *Abstract of the Treatise* (1740), and the *Enquiry*, Section 4 (1748 – but see also *E* 12.22-23);
  - Considered dangerously sceptical – C. D. Broad (1926) called this "the scandal of philosophy";
  - Provoked a great deal of modern philosophy of science (e.g. Popper);
  - Yet its interpretation remains controversial!

85

85

Hume's Fork

- *Enquiry* 4 starts with a vital distinction between types of proposition:
  - Relations of ideas can be known *a priori* (i.e. without dependence on experience) by inspecting ideas; hence their falsehood is inconceivable and they are necessarily true.
    e.g. Pythagoras' Theorem. (*E* 4.1)
    3 × 5 = ½ × 30. (*E* 4.1)
    All bachelors are unmarried.
  - The modern term is analytic (as understood e.g. by Ayer): "true in virtue of its meaning".

86

86

Matters of Fact

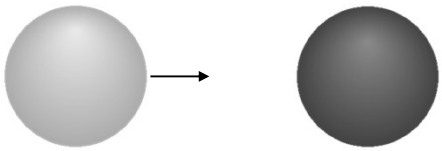
- Matters of fact cannot be known *a priori*, and their truth / falsity are equally conceivable:
  e.g. The sun will rise tomorrow. (*E* 4.2)
  The sun will not rise tomorrow. (*E* 4.2)
  This pen will fall when released in air.
- The modern term is synthetic: a proposition whose truth "is determined by the facts of experience" (Ayer, *LTL* 1971, p. 105).

- So how can I discover a matter of fact which I neither perceive directly, nor remember?

87

87

- Suppose we see a yellow billiard ball moving towards a red one and colliding with it. We expect the red one to move – but why?



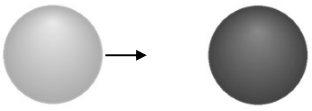
- Because we suppose a *causal* connexion between the two events. But in that case …
- How do we learn about causes and effects?

88

88

- Imagine Adam, newly created by God, trying to envisage the effect of the collision:

  - how could he possibly make any prediction at all in advance of experience?



  - He might *imagine* that lots of different things could happen. But what *reason* could he give to favour one possible outcome over others?

89

89

The Need for Extrapolation

- All inference to matters of fact beyond what we perceive or remember seems to be based on causation, and all our knowledge of causal relations comes from experience.
- But we can only learn from experience on the assumption that observed phenomena provide a guide to unobserved phenomena.
- We thus *extrapolate* from past to future on the assumption that they resemble. But do we have a rational basis for doing so?

90

90

Oxford Lectures on General Philosophy, 2018-19

The Uniformity Principle

- That we can legitimately extrapolate from observed to unobserved is often called Hume's "Uniformity Principle" or "UP" (not his term):
  - "all our experimental conclusions proceed upon the supposition, that the future will be conformable to the past" (*E* 4.19)
  - "all inferences from experience suppose, as their foundation, that the future will resemble the past, and that similar powers will be conjoined with similar sensible qualities" (*E* 4.21)

91

91

Possible Sources of Evidence for UP

"It is common for Philosophers to distinguish the Kinds of Evidence into *intuitive*, *demonstrative*, *sensible*, *and moral"*.

(Hume, *Letter from a Gentleman*, 1745, para. 26)

- By *intuition*, Hume means immediate self-evidence: the way we know that something is identical with itself, or that 2 is greater than 1.
- *Sensible* evidence means *from the senses*.
- *Demonstrative* and *moral* (or *probable*) reasoning are types of inference identified by John Locke …

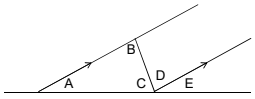
92

92

Locke's Account of Reasoning

- In *demonstrative reasoning*, each link in the inferential chain is "intuitively" certain.
  - Characteristic of mathematical reasoning.
  - Locke often cites the proof that a triangle's angles sum to two right angles (*Essay* IV i 2, IV xv 1 etc.):

    A = E
    B = D
    ∴ A + B + C = E + D + C



  - Hume's *Enquiry* (4.18) also calls this "*reasoning concerning relations of ideas*"

93

93

- In *probable reasoning*, [some or all] links in the inferential chain are merely probable.

  "Tell a Country Gentlewoman, that the Wind is South-West, and the Weather louring, and like to rain, and she will easily understand, 'tis not safe for her to go abroad thin clad, in such a day, after a Fever: she clearly sees the probable Connexion of all these, *viz.* South-West-Wind, and Clouds, Rain, wetting, taking Cold, Relapse, and danger of Death …" (Locke, *Essay* IV xvii 4)

  - Hume's *Enquiry also* calls this "*moral reasoning*" and "*reasoning concerning matter of fact and existence*" (we can say "*factual inference*" for short).
- For Locke, both types of reasoning involve rational *perception* of the links (*Essay* IV xvii 2).

94

94

The Corresponding Modern Terms: *Deductive* and *Inductive*

- A *deductive* argument (in the informal sense) is an argument in which the premises *logically guarantee* the truth of the conclusion: *it is not possible for the premises to be true and the conclusion to the false* (at the same time).
  - There is also a related *formal* notion, in which a deductive argument is one that is *formally* valid.
- An *inductive* argument is one that draws a conclusion about the unobserved, by extrapolating from past experience.

95

95

Justifying Inductive Extrapolation?

- What ground can we give for extrapolating from observed to unobserved?
  - Self-evident "intuition"? No.
  - Demonstrative reasoning? No: neither of these, because it's clear that extrapolation *could* fail, so it can't be logically demonstrated.
  - Sensory knowledge? No: what we perceive of objects gives us no insight into the basis of their powers, hence no reason to extrapolate.
  - Factual inference? No: that would be circular …

96

96

Arguing in a Circle

"We have said, that all arguments concerning existence [i.e. factual inferences] are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental [i.e. experiential] conclusions proceed upon the supposition, that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must be evidently going in a circle, and taking that for granted, which is the very point in question." (*E* 4.19)

97

97

Hume's Sceptical Conclusions

- Our empirical reasoning is based on a brute assumption of uniformity, rather than any insight into the nature of things.
  - Hence human reason differs from animal reason only in *degree* (see *Enquiry* 9).
  - Locke's supposed "perception" of probable connections is wishful thinking.
  - No causal interactions are really *intelligible*: we discover what causes what not by pure thought, but by observation of uniformities.

98

98

Attempts to Answer Hume

- The General Philosophy reading list includes several attempts to justify induction in the teeth of Hume's famous argument:
  - P. F. Strawson (an "analytic" justification)
  - Simon Blackburn (a "probabilistic" justification)
  - James Van Cleve (includes elements of "inductive" justification and "reliabilism")
  - Hans Reichenbach (a "pragmatic" justification)
- These raise deep and interesting issues, whose upshot is controversial.

99

99

- "Analytic" Justification of Induction
  - Induction is rational by definition: it is partly constitutive of our concept of rationality.
- "Probabilistic" Justification of Induction
  - Induction can be justified by arguments appealing to mathematical probability.
- "Inductive" Justification of Induction
  - Induction is justified by its past success.
- "Pragmatic" Justification of Induction
  - We are pragmatically (rather than epistemically) justified in relying on induction, because it will work if any method of prediction will.

100

100

The "Analytic" Justification

- The past success of induction seems to provide a strong consideration in its favour.
  - Compare the use of induction with, say, astrology or tea-leaf reading ("tasseography") – we find *by experience* that these methods are very unreliable, and hence judge them as irrational.
  - Rather than view induction as *justified* by its past success, maybe we should treat the inductive success of a method of inference as *constitutive* of *what it is for a method to be rational*.
  - Hence induction is rational "by definition".

101

101

A Humean Response

- It's not clear that the "analytic justification" really engages with Hume's problem.
  - Hume himself would fully agree that we *call* induction "rational", and even that we're right – in a sense – to do so. (We'll return to this later.)
  - Hume's sceptical result doesn't concern this use of words or the structure of our common-sense conceptual landscape: it questions our *epistemic justification* for the inductive extrapolation which our common-sense, our concepts, and our inferential behaviour all simply take for granted.

102

102

Appealing to Probability

- Hume himself takes for granted, within his famous argument, that all "probable" arguments must be based on experience.
- So it might be possible to escape his argument if induction could be justified using *a priori* probabilistic considerations.
- Though most philosophers are sceptical, interesting attempts have been made by:
  - Bruno De Finetti (1937), D.C. Williams (1947), David Stove (1986), Sir Roy Harrod (1956), Simon Blackburn (1973), J. L. Mackie (1979), …

103

103

Roy Harrod's Argument

- Suppose I am crossing a desert, and predict: "the desert ahead will extend for at least 10% as long as the distance I have already travelled".
- It seems that *however* wide the desert may be, if I make these "one-tenth-extrapolations" frequently, roughly 10/11 of them will be correct.
- So maybe it is reasonable to conclude that any such extrapolation is 10/11 probable?
- And maybe the same argument can be applied to the observed continuation of uniformity in the world, thus justifying induction?

104

104

A Suggested Correction

- This can't be *quite* right, because however far I have travelled, *some* one-tenth-extrapolations have *already* been fulfilled, and I shouldn't include those within my statistics regarding *future* fulfilments. But since I don't know what proportion of the path I've travelled, I don't know how big an adjustment this requires.
- Harrod suggests that I can correct for this by *averaging* over all possible positions on the path: this gives me a more modest probability of a correct prediction: $10^2/11^2$ or 100/121.

105

105

Blackburn's Twist

- Blackburn argues that this correction too is subject to a similar objection (and indeed he seems to be right). We apparently have no way of properly taking into account the fact that an unknown proportion of the predictions *have already been fulfilled*.
- However Blackburn ingeniously tries to turn the tables on the sceptic, on the grounds that it is *unreasonable* to predict the failure of a method of prediction that – in general – will statistically yield truth most of the time.

106

106

Objections to Harrod and Blackburn

- Harrod's emphasis on *the proportion of extrapolations that will be true* gives a false impression of the logic of the situation:
  - The extrapolations are sequentially ordered, not picked randomly from some population. The next extrapolation can be true only if *all* of those that preceded it come out true first.
- Blackburn's emphasis on *the general practice* of one-tenth-extrapolation is also unhelpful:
  - The 10/11 proportion applies to *each* such sequence, *independently of the others*.

107

107

- So when I ask "Is my next extrapolation likely to come out true?"
  - The *only* sequence that matters "statistically" is the one I'm in: others are quite irrelevant.
  - The *only* extrapolation that matters is the one I'm about to give; the "statistics" of extrapolations in general can't apparently help.
  - Unless I know how far I am through the desert (or the period of uniformity), I cannot know what proportion of extrapolations have *already* been fulfilled, so cannot anyway apply such statistics.
  - Hence unless I can justify extrapolation from observed to unobserved, it seems that I am no better off than when I started out.

108

108

General Philosophy

Prof. Peter Millican, Hertford College

Lecture 4: More on Induction, and Facing Up to Scepticism

109

Justifying Induction Inductively?

- Max Black (1958) argued that induction can be justified inductively without vicious circularity, by distinguishing between an inductive *rule* and an inductive *premise*. Van Cleve also takes this line, combining it with externalism (see later).
- But Van Cleve misunderstands Hume:
  - "In what sense can it be maintained that inductive inferences *presuppose* that the future will resemble the past … ? Evidently, it is in this sense only: an inductive inference would not be *valid* – would not be *demonstrative* – unless its premises were augmented by some such principle." (p. 557)

110

110

Hume is Not a Deductivist

- The allegation that Hume is a "deductivist" is no longer seriously maintained by scholars.
  - A deductivist would have no interest in a merely "probable" justification of the Uniformity Principle.
  - Hume is asking, given his Adam thought-experiment, how past observations make a difference to our *a priori* ignorance about the unobserved.
  - Observed instances only make a difference if they are *epistemically relevant* to unobserved instances: the claim that they *are* epistemically relevant – that we can take "the past as a rule for the future" – is precisely Hume's Uniformity Principle (UP).

111

111

Against the Inductive Justification

- So Hume is not doubting induction merely because it lacks deductive force;
- Rather, he is asking whether we have *any rational basis whatever* for taking the observed as positive evidence for the unobserved.
  - It seems that either an inductive premise (e.g. UP) or an inductive rule can confer this rational grounding only if it is itself rationally grounded.
  - So appealing to the distinction between a premise and a rule, in trying to justify induction inductively, fails to evade Hume's charge of vicious circularity.

112

112

Popper: Doing Without Induction?

- Convinced by Hume's argument that induction cannot be justified, Karl Popper claims that science can proceed without it:
  - Instead of attempting to justify a general claim (e.g. "All *A*s are *B*s") from positive particular instances ("A_1 is *B*", "A_2 is *B*", "A_3 is *B*", etc.),
  - we focus on *refuting* the general claim (e.g. "All *A*s are *B*s") by negative particular instances (e.g. "A_n is not *B*").
  - The logic here is *deductive*, not *inductive*.

113

113

Popperian Methodology

- Suppose we start off with various theories about *A*s:

	A_1	A_2	A_3	A_4	A_5	A_6	A_7	A_8
1	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
2	*B*	*C*	*B*	*C*	*B*	*C*	*B*	*C*
3	*B*	*B*	*C*	*B*	*B*	*C*	*B*	*B*
4	*B*	*D*	*B*	*D*	*B*	*D*	*B*	*D*
5	*B*	*C*	*B*	*C*	*B*	*C*	*B*	*C*
6	*C*	*C*	*D*	*D*	*C*	*C*	*D*	*D*

114

114

- Over time, our observations will conform to some of these theories, but refute others. For example, if the first two *A*s are *B*s, just two of our theories will be left standing:

	A_1	A_2	A_3	A_4	A_5	A_6	A_7	A_8
1	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
2	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~
3	*B*	*B*	*C*	*B*	*B*	*C*	*B*	*B*
4	~~*B*~~	~~*D*~~	~~*B*~~	~~*D*~~	~~*B*~~	~~*D*~~	~~*B*~~	~~*D*~~
5	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~
6	~~*C*~~	~~*C*~~	~~*D*~~	~~*D*~~	~~*C*~~	~~*C*~~	~~*D*~~	~~*D*~~

115

115

- If the third *A* is also a *B*, then it seems that only one of our theories remains, having been "corroborated" (Popper's term) by our experience:

	A_1	A_2	A_3	A_4	A_5	A_6	A_7	A_8
1	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
2	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~
3	~~*B*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*B*~~
4	~~*B*~~	~~*D*~~	~~*B*~~	~~*D*~~	~~*B*~~	~~*D*~~	~~*B*~~	~~*D*~~
5	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~	~~*B*~~	~~*C*~~
6	~~*C*~~	~~*C*~~	~~*D*~~	~~*D*~~	~~*C*~~	~~*C*~~	~~*D*~~	~~*D*~~

116

116

- But things are not so straightforward, because new theories can easily be cooked up to replace (or amend) those that have been refuted:

	A_1	A_2	A_3	A_4	A_5	A_6	A_7	A_8
1	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
2	*B*	*B*	*B*	*C*	*B*	*C*	*B*	*C*
3	*B*	*B*	*B*	*B*	*B*	*C*	*B*	*B*
4	*B*	*B*	*B*	*D*	*B*	*D*	*B*	*D*
5	*B*	*B*	*B*	*C*	*B*	*C*	*B*	*C*
6	*B*	*B*	*B*	*D*	*C*	*C*	*D*	*D*

117

117

The Problem for Popper

- Without induction, it is hard to see why a theory's having been refuted *in the past* should give us any concern about that theory's *future* predictions:
  - Why should we not simply amend any refuted theory by adjusting its past "predictions" to conform to what we have observed?
  - Popper says this is "ad hoc", but why should *that* be so bad? Isn't it obvious good sense to amend a theory to correct its errors?

118

118

Simplicity and Induction

- Popper could escape this problem if he is prepared to advocate a preference for *simple* theories over complex ones.
- But if the preference for simple theories can be justified in any way, that gives a plausible route towards justifying induction (since inductive consistency over time is, in an obvious sense, a simple assumption).
- But justifying a preference for simple theories may be no easier than justifying induction!

119

119

Epistemic and Pragmatic Justification

- "Epistemic justification" concerns the *likely truth* of a belief that *P*, *evidence* that *P*, and *reason to believe* that *P*.
- "Pragmatic justification" involves what it is *reasonable to do*.
- In so far as belief is subject to our control, it *might* be reasonable to adopt beliefs which we have no good (epistemic) reason to believe.
- Pascal argued that we should try to believe in God even if it is objectively unlikely …

120

120

Pascal's Wager

	God exists	God doesn't exist
I believe	Self-denying life, followed by eternal bliss	Self-denying life, followed by nothing
I don't believe	Enjoyable life, followed by eternal hellfire	Enjoyable life, followed by nothing

Even if God's existence has a tiny probability (say 0.1%), the infinite eternal payoffs dominate all other considerations: I'm better off "betting" on God.

121

121

Is Pragmatic Belief Impossible and/or Dishonest?

- As Pascal recognises, there might be things we can do to foster belief, such as:
  - reading only one-sided literature (e.g. the *Gospels*);
  - mixing with people who all think the same.
- It seems plausible that epistemic "gaps" can leave legitimate room for pragmatism:
  - if we *cannot* achieve epistemological satisfaction, why not allow pragmatic factors to "tip the balance"?
  - recognition of our limits might allow us to achieve some "tranquility" in that resigned acceptance.

122

122

Pragmatic Justification of Induction?

- The would-be justifications of induction we have examined all look problematic, as does Popper's attempt to do without one.
- Can we be less ambitious, and aim for a *pragmatic* rather than *epistemic* justification?
  - The general idea here is: *maybe the world will turn out not to provide any reliable means of prediction, but (arguably) <u>if any method of prediction will work, induction will</u>; hence it is pragmatically reasonable to rely on induction.*

123

123

Reichenbach's Justification

- Hans Reichenbach (1949) argued that if there is any general rule, deterministic or statistical, to be found – e.g. that 61% of *A*s are *B*s – then induction will find that general rule, and is better than any alternative method.
- But there is a fundamental problem with this argument: it takes for granted that we are looking for an <u>*inductively consistent*</u> rule: one that stays the same over time. So we are tacitly taking induction for granted in the very way that we have framed the problem!

124

124

Is Pragmatic Justification Pointless?

- It is also pertinent to ask whether there is any point to a sophisticated *pragmatic* justification of *something that we psychologically cannot help doing*? Hume says that inductive

> "belief is the necessary result of placing the mind in such circumstances. It is an operation of the soul, when we are so situated, as unavoidable as to feel the passion of love, when we receive benefits; or hatred, when we meet with injuries. All these operations are a species of natural instincts, which no reasoning or process of the thought and understanding is able, either to produce, or to prevent." (*E* 5.8)

125

125

Moving Away from Self-Justification

- Recall Hume's critique of Descartes' "antecedent scepticism" (*E* 12.3), which suggests that the whole idea of *proving to ourselves* the reliability of *our own faculties* is utterly hopeless.
- Nevertheless there seems a significant epistemic contrast between *having faculties that <u>are in fact</u> reliable* and *having faculties that are <u>not</u> reliable*.
  - It is obviously better to have faculties that reliably give you true information about the world, even if you cannot *prove* that they do so.
  - This is the situation of healthy animals: can they then have justified beliefs, or even knowledge?

126

126

The Externalist Alternative

- An *internalist* account of justification requires all relevant factors to be *cognitively accessible* to us. Such justifications tend to be hard to achieve …
- An *externalist* account (e.g. Armstrong, Goldman, Nozick) allows that some factors relevant to assessing the justification of our beliefs can be *inaccessible* to us, or *external* to our cognitive perspective.
  - So justification could be a matter of a *reliable* causal link between facts and beliefs. I might know that *P* (because my belief "tracks the truth" in Nozick's phrase) without knowing how I know.
  - Animals can have justified beliefs in this sense.

127

127

Externalism and Perception

- Externalism is especially popular as a way of answering scepticism about the senses:
  - *If my eyes do in fact give reliable information about external objects*, then on the externalist account, what I see can justify my beliefs about the external world (and thus yield knowledge), even if I cannot *prove* that my eyes are reliable.
  - Again, this allows us to say that animals can know things by sense (e.g. the dog can know by smelling that its master is approaching), even though they cannot *know that they know*.

128

128

Knowing that One Knows

- Externalism also avoids a *vicious regress*. An internalist might think that I cannot have *justified belief* or *knowledge* of *P* unless I can *justify or know* that I have such *justification or knowledge*.
  - But any such principle would iterate implausibly:
    - If I know that *P*, then it must be that
    - I know that *I know that P*, and hence that
    - I know that *I know that I know that P, … (on for ever)*
  - This seems to imply that if knowledge is to be possible, it must be possible *in principle* for me to know something without knowing that I know it.

129

129

Moore on Scepticism

- A famous argument of G.E. Moore can also be used to support externalism, appealing to common-sense knowledge to oppose scepticism about the external world:
  - Here's one hand [he holds up a hand], and here's another [he holds up the other].
  - If this is a hand, then there is an external world.
  - Therefore there is an external world, and scepticism is refuted.

130

130

Two Arguments from "P implies Q"

- *Modus Ponens*

P implies Q		$P \rightarrow Q$
P is true		P
therefore Q is true	$\therefore$	Q

- *Modus Tollens*

P implies Q		$P \rightarrow Q$
Q is false		$\neg Q$
therefore P is false	$\therefore$	$\neg P$

131

131

One person's *modus ponens* is another's *modus tollens*

- Consider the conditional $P \rightarrow Q$: "*If I know this is a hand, then I know there is an external world*".
- Moore asserts
  - P: "*I know this is a hand*", and thus infers:
  - Q: "*I know there is an external world*".
- The sceptic asserts
  - $\neg Q$: "*I don't know there is an external world*", and thus infers:
  - $\neg P$: "*I don't know this is a hand*".
- Moore finds his premise more plausible than the sceptic's, and externalism can help him here …

132

132

Moore and Externalism

- If we agree with Moore, then we may see externalism about knowledge and justification as a way of reconciling his claim that we know this is a hand, with the sceptical arguments that seem to show that we can't know that we know.
- An externalist can say to the sceptic:

  "I can't *prove* to you that I know this is a hand, or that my belief is justified, but nevertheless I claim that *I do know it*, and that it is justified."

133

133

Externalism and Scepticism

- Externalism can thus ***answer*** the sceptical worries, in a way, but it does not rule them out or ***refute*** them. We can still ask: "How do I *know* – or *what right do I have to be at all confident* – that my senses are in fact reliable as presumed by the externalist account?"
- So an externalist can still be subject to sceptical doubt "from the inside".
  - Such an externalist won't say "I do not know that there's an external world", but can still say "*Perhaps* I do not know, and it's all a dream".

134

134

Externalism and Induction

- Van Cleve proposes an externalist approach to the justification of induction.
  - This suggests that induction can be considered justified *if* the world is such as to make inductive predictions probably true (e.g. because the world in fact behaves consistently over time)
  - Again note that this sort of approach can deem induction to be justified *even if we are unable to know from an "internalist" perspective that the world is inductively "cooperative"*. So our inability to *prove* induction justified is irrelevant here.

135

135

A Worry About Externalism in Respect of Induction

- The externalist about inductive justification claims that if induction ***is in fact reliable***, then inductive inferences can give justified beliefs.
- But "is in fact" is problematic: we want to know whether induction ***will continue*** *to be reliable* – that is *exactly* the inductive sceptic's concern!
- The externalist response: "if induction *in fact* continues to be reliable, then we're *justified* in believing this" seems dogmatic – saying that here *truth* alone is sufficient for *justification*.

136

136

Why Induction Is A Special Case

- In the case of sense perception, the externalist condition – *that our senses operate so as to give us reliable information about external objects* – is a fact whose endurance over time can potentially underwrite our future perception.
- In the case of induction, however, the externalist condition is *precisely that the way things behave will endure over time*. There is no *independent* fact available whose truth could underwrite this assumption. So our epistemological condition seems to be that of taking induction for granted.

137

137

The Quest for Meta-Knowledge

- If we feel sceptical worries about induction, then it is unlikely to help simply to be told "Well, if the world ***does in fact*** continue to act uniformly, then you can be said to have known that it will".
  - We are looking for something more than mere reliability from an external point of view: we want some kind of first-personal higher-level reflective (or "meta-") understanding that will give us *epistemic assurance* of continuing uniformity.
  - This is ***not*** the sort of worry that a dog could have. And it seems not to be the sort of worry that can be allayed by externalism.

138

138

Trusting Our Faculties By Default

- Hume suggests an alternative approach which remains *internalist*, and does offer a reflective "sceptical solution" to the sceptical doubts.
- We should trust our faculties "by default", unless we find problems that cast doubt on them, confining ourselves to *consequent* scepticism (*E* 12.5):

> "There is another species of scepticism, *consequent* to science and enquiry, when men are supposed to have discovered, either the absolute fallaciousness of their mental faculties, or their unfitness to reach any fixed determination in all those curious subjects of speculation, about which they are commonly employed."

139

139

The Ethics of Belief

- Descartes advocates that *we should withhold assent* to anything not known with total certainty. So he would oppose believing "by default".
- Like Moore, Hume considers this ridiculous: *there is no such duty*, and belief is typically involuntary: withholding assent isn't even an option.
- Views on scepticism and the "ethics of belief" are likely to be related:
  - If you think scepticism can be refuted, you may well consider refutation a duty. But if you think it can't be refuted, you might well accept that we have no choice but to hold beliefs despite these unrefuted doubts.

140

140

The Burden of Proof, and Induction

- Consider again, in this light, the "antecedent" sceptic of *Enquiry* 12.3, who insists that we should justify our faculties *before* relying on them.
- The impossibility of doing so in general suggests shifting the burden of proof: so the sceptic must give us *a reason for scepticism*, rather than presuming that it's up to us to justify our faculties in advance of being given any such reason.
- But Hume has argued powerfully that the assumption of inductive uniformity has no independent basis: is *this* a sufficient reason for scepticism?

141

141

Facing Up to Our Epistemic Situation

- If our situation is ultimately that we:
  - cannot help making inductive inferences;
  - cannot find any epistemological *justification* for this;
  - *but also*
  - cannot see any (other) intrinsic *flaw* in such inference;

  then what is the appropriate reaction?
- The Cartesian "dogmatist" and the "Pyrrhonian" sceptic might insist that we should stop making such epistemically unjustified inferences. But what *argument* can they give us for doing so?

142

142

- After all, if Hume is right, even the Cartesian and Pyrrhonian are psychologically unable to prevent themselves from making inductive inferences.
- And even if we were able, what's the benefit?

> "a Pyrrhonian cannot expect, that his philosophy will have any constant influence on the mind: Or if it had, that its influence would be beneficial to society. On the contrary, he must acknowledge, if he will acknowledge any thing, that all human life must perish, were his principles universally and steadily to prevail. All discourse, all action would immediately cease; and men remain in a total lethargy, till the necessities of nature, unsatisfied, put an end to their miserable existence." (*E* 12.23)

143

143

"The Whimsical Condition of Mankind"

- In the end, the sceptical arguments only

> "show the whimsical condition of mankind, who must act and reason and believe; though they are not able, by their most diligent enquiry, to satisfy themselves concerning the foundation of these operations, or to remove the objections, which may be raised against them." (*E* 12.23)

- This might leave us with something like the "ataraxia" – tranquillity or unperturbedness – sought by the ancient sceptics: a calm acceptance of the human condition, in full understanding of (at least some of) its limits.

144

144

Oxford Lectures on General Philosophy, 2018-19

General Philosophy

Prof. Peter Millican, Hertford College

Lecture 5: The Mind, and Personal Identity

145

Mind and Body: Different Views

- Dualist Interactionism
  - Mind and body are distinct substances, but can causally influence each other (e.g. if I decide to raise my arm, or stub my toe and feel pain).
- Epiphenomenalism
  - Mental events are "epiphenomenal" – caused by brain events, but themselves causally inert.
- Physicalism (or Materialism)
  - Only physical things exist, hence there is nothing to the mind beyond the physical brain, and mental states are identical to brain states.

146

146

Cartesian Dualism

- The view for which Descartes is now best known:
  - The body is *material*, composed of matter whose essence (i.e. fundamental property from which other properties follow) is *extension*.
  - The mind is composed of *immaterial substance* whose essence is *thinking*.
- This *substance dualism* is to be contrasted with *property dualism* (i.e. that there are both physical and non-physical *properties*).

147

147

A Bad Argument for Dualism

- In his *Discourse*, Descartes seems to argue:

  I can doubt that my body exists.

  I cannot doubt that I exist.

  ∴ I am not identical with my body.
- Compare:

  I can doubt that Hesperus is Phosphorus. *

  I cannot doubt that Phosphorus is Phosphorus.

  ∴ Hesperus is not Phosphorus.

* *Hesperus = the Evening Star; Phosphorus = the Morning Star; in fact both are appearances of the planet Venus.*

148

148

Leibniz's Law and Its Abuse

- If *a* and *b* are the same thing, then any property of *a* must also be a property of *b*:

  $Fa, a=b \models Fb$
  - If *F* is the property of *being doubted by me to exist*, *a* is *me*, and *b* is *my body*, we get Descartes' argument from the *Discourse.*
  - Likewise *F* could be the property of *being doubted by me to be Phosphorus (etc.)*
- The fallacy is that *these* are not genuine *properties*, but epistemological *relations*.

149

149

Epistemology → Metaphysics?

- *The way in which we come to know*, or be certain, of something need not reflect its ultimate nature (or *why it is that way*).
  - From I am thinking, it plausibly follows that (in at least one sense) I am a thing that thinks.
  - But it does *not* necessarily follow that I am something whose essence is to think, …
  - nor that I could exist without being extended: consider Locke's notorious speculation at *Essay* IV iii 6 that God could make matter think.

150

150

Descartes' Main Argument for Dualism (in *Meditation* VI)

- Descartes' main argument turns on supposed insight from clear and distinct perception:
  - I have a clear and distinct understanding of myself as (potentially) a thinking, non-extended thing.
  - I have a clear and distinct understanding of body as (potentially) extended and non-thinking.
  - Anything I clearly and distinctly understand could be created by God accordingly.
  - So I could exist separately from my body, and it follows that I am genuinely distinct from it.

151

151

Possibly Distinct → Actually Distinct?

- The final move of Descartes' argument:

  God could have created my mind separately from my body.

  ∴ It is possible for my mind to exist without my body existing.

  ∴ My mind and body are in fact distinct things.
- To understand this logic, consider Hesperus and Phosphorus, which are not in fact distinct things, and *hence* it is not possible for one of them to exist without the other existing.

152

152

- But how can Descartes *establish the truth* of his final premise? He seems to be arguing:

  God could have created my mind separately from my body (for all I know).

  ∴ It is (genuinely) possible for my mind to exist without my body existing.
- This implicitly moves from *epistemological* to *metaphysical* possibility, and as with the doubt argument, the fallacy is revealed by parody:

  Hesperus could exist without Phosphorus (for all Pyrrho knows). TRUE, perhaps

  ∴ It is (genuinely) possible for Hesperus to exist without Phosphorus existing. FALSE

153

153

Epistemology and Metaphysical Possibility

- *Epistemological Possibility*

  involves what is possible for all I know, e.g. "It is possible that 123456789123 is a prime number", which just means something like "Maybe 123456789123 is prime".
- *Metaphysical Possibility*

  involves what is genuinely possible. In this sense, it is not possible that 123456789123 is a prime number – there is no way that this very number could fail to be divisible by 3.

154

154

Possible Worlds

- Metaphysical *modality* (i.e. possibility and necessity) are commonly elucidated in terms of *possible worlds*:
  - *P is possible* (i.e. possibly *true*) if and only if *there is some possible world in which P is true*
  - *P is necessary* (i.e. necessarily *true*) if and only if *P is true in every possible world* (i.e. there is no possible world in which *P* is false).
- It is a necessary truth that 123456789123 is divisible by 3 – true in all possible worlds.

155

155

The Conceivability Principle

- "It must be noted that possible existence is contained in the concept or idea of everything that we clearly and distinctly understand."
  (*Descartes*, *First Set of Replies*, CSM ii 83)
- "my conceiving or imagining power does not extend beyond the possibility of real existence or perception"
  (*Berkeley*, *Principles* i 5; cf. Locke *Essay* II xiii 22)
- "whatever we *conceive* is possible, at least in a metaphysical sense"
  (*Hume*, *Abstract* 11; cf. Hume's Fork, *Enquiry* 4.1-2)

156

156

Goldbach's Conjecture

- In 1742, Christian Goldbach conjectured that:
  "Every even integer greater than 2 can be written as the sum of two prime numbers."
  e.g. 4=2+2, 6=3+3, 8=3+5, 10=5+5, 12=5+7, 14=7+7, 16=5+11, 18=7+11, 20=7+13, 22=11+11, 24=11+13, …
- This has been tested successfully for a huge range of numbers, but never proved.
  - Is it conceivably true, and therefore possible?
  - Is it conceivably false, and therefore possibly false?
  - But an arithmetic claim, if true, is ***necessarily*** true! So the Conceivability Principle looks in trouble unless we restrict it (e.g. to "clear and distinct" conceivability).

157

157

The Distinct Substances Problem

- Denial of conceivability has often been turned against Descartes: "How is it conceivable for two such distinct substances to interact at all?"
  - This looks like a potentially serious problem *if one expects causation to be ultimately intelligible*.
  - It's not such a problem *in principle* on a Humean view of causation: causation is a matter of lawlike correlation rather than intelligible connexion.
  - But it's hard to see what such "laws" could be like, so there still seems to be an *explanatory gap* between physical and mental.

158

158

The Causal Closure Principle

- The *Causal Closure Principle* is that physical events (or their probabilities) are determined entirely by physical causes.
  - Also called "the completeness of physics".
  - In this form, the principle is compatible with physical events' being to some extent *random*.
- If Causal Closure is true, then every movement of my mouth and hand (hence everything I say and write) has a full physical explanation.
  - So how can mental events have any causal impact?

159

159

Evidence for Causal Closure

- Causal closure is often assumed as educated common-sense, vindicated by the success of science, but hard evidence for it is scanty.
  - Laws in science typically involve *ceteris paribus* ("other things being equal") clauses, predicting what will happen *assuming no other influences*.
  - Experiments typically involve isolated systems, carefully excluding other influences (e.g. people).
  - No experiment yet devised can exclude the hypothesis that "soul-stuff" subtly influences the brain at a microscopic (or sub-microscopic) level.

160

160

An Evolutionary Perspective

- If human minds evolved without special divine intervention, it's hard to see how any completely distinct mental substance could get involved in a physically evolving system. So dualism seems implausible.
- Familiar mental/physical correlations – e.g. healthy food brings pleasure; bodily damage brings pain – is explicable by evolution only if mental events have a causal impact on survival and reproduction. So epiphenomenalism seems even less plausible.
- But despite this, it may still seem inconceivable to us that consciousness – our intimate awareness of our thoughts and feelings – could arise from brute matter!

161

161

Phenomenal Consciousness

- The word "conscious" can be used for sentience, wakefulness, or self-consciousness, but "phenomenal consciousness" refers to internal subjective experience – "what it is like" for the experiencer.
- Philosophical "zombies" are not undead or flesh-eating monsters, but hypothetical creatures that are physically identical to us (and hence behave exactly the same), but without any phenomenal consciousness: "The lights seem to be on, but nobody's at home."

162

162

The Possibility of Zombies

- The zombie argument against physicalism can be set out like this:
  1. Zombies are a genuine possibility.
  2. Therefore, human brain states could exist exactly as they do, without being accompanied by phenomenal conscious states.
  3. Therefore, phenomenal conscious states are not human brain states.
  4. So physicalism is false – phenomenal consciousness goes beyond the physical.

163

163

Jackson's "Knowledge Argument"

- Imagine a scientist (Mary) who learns all the physical facts about colour and colour perception, but who can see only in black, white, and shades of grey.
- If she then acquires normal sight and comes to see colours, she will learn what they look like, something she didn't know before.
- Hence these phenomenal colour properties cannot be physical. We seem forced into *property* dualism, if not *substance* dualism.

164

164

Begging the Question?

- Jackson's thought-experiment assumes from the start that Mary *can* know "all the physical facts" without knowing how colours look.
- So it apparently takes for granted that how (e.g.) red looks is not a *physical* fact: if you find the argument convincing, that's because you've already accepted the conclusion.
  - Physics indeed doesn't seem to accommodate *perspectival* facts; is this just back to *consciousness*?
  - For discussion of the many responses made to the argument, see http://www.iep.utm.edu/know-arg/ and https://plato.stanford.edu/entries/qualia-knowledge/.

165

165

Recall from Lecture 2 …

- The standard objection to Hobbes' materialism, dating back to the 1650s, that matter could not possibly *think* or be *conscious*.
  - But matter seems to have various "unintelligible" powers (*gravity*, *charge*, etc.): why not *thought*?
- This response aims to support physicalism,
  - but if "physical" matter might turn out to have *weird* or *spooky* properties, then we run into Hempel's Dilemma: how to define "physicalism"?
  - and if physicalism won't rule out "spooks", then it might lose its hard-headed scientific appeal.

166

166

Pan-Psychism, or Scepticism?

- Evolutionary considerations might suggest to us that some form of consciousness goes "all the way down", to fundamental physical particles.
  - This is compatible with the claim that everything is composed of physical constituents.
  - But it contradicts the standard understanding of "physicalism" by positing ultimate mental qualities.
- Maybe we just shouldn't expect to be able to understand these things (*at least* until the requisite science has gone a lot further)?
  - So David Chalmers' "Hard Problem" of explaining phenomenal consciousness is just *too* hard for us!

167

167

"Though the chain of arguments, which conduct to [some exotic theory], were ever so logical, there must arise a strong suspicion, if not an absolute assurance, that it has carried us quite beyond the reach of our faculties, when it leads to conclusions so extraordinary, and so remote from common life and experience. We are got into fairy land, long ere we have reached the last steps of our theory; and *there* we have no reason to trust our common methods of argument, or to think that our usual analogies and probabilities have any authority. Our line is too short to fathom such immense abysses. And however we may flatter ourselves, that we are guided, in every step which we take, by a kind of verisimilitude and experience; we may be assured, that this fancied experience has no authority, when we thus apply it to subjects, that lie entirely out of the sphere of experience."

(*Enquiry* 7.24, cf. *Dialogues* 1.10)

168

168

Personal Identity

- Distinguish two questions:
  - What is it to be a person?
    - This invites a discussion of mind and body etc.
  - What is it for *a* and *b* to be *the same* person?
    - This raises the issue of *personal identity*
- Another important distinction:
  - Sameness = qualitative similarity
  - Sameness = numerical identity
    - Often best to avoid the words "same" and "identity". Instead say "similar" or "one and the same".

169

169

Leibniz's Law Again

- If *a* and *b* are the same thing, then any property of *a* must also be a property of *b*:

$$Fa, a=b \models Fb$$

- Let *a* = Peter Millican as a baby.
  b = Peter Millican today.
  F = "weighs less than a stone".
  - We have Fa, $\neg Fb$, hence apparently $\neg(a=b)$?!
  - This can be dealt with by specifying *F* more precisely: "weighs less than a stone *in 1958"* or "weighs less than a stone *in 2018"*.

170

170

Cross-Temporal Identity

- We thus avoid the fallacy, notoriously committed in Hume's *Treatise* (e.g. *T* 1.4.6.5-7), of supposing that strict *identity*, i.e. "one and the sameness", over time implies exact *similarity* over time.
- But this still leaves the question of *what constitutes personal identity over time*: e.g. spatio-temporal continuity, physical constitution, immaterial substance, organic life, psychological continuity?
- This is not the same as asking *how we generally judge personal identity in practice* (e.g. by bodily continuity, for obvious practical reasons).

171

171

Human Animals

- Since we are evolved animals, it is tempting to identify personal identity with the identity of the human organism.
- However this has significant implications:
  - If I was once a fetus (the same human organism as me), then it seems to follow that I was once not a person (assuming person-hood requires some significant mental life).
  - So being a person is an *accidental* property of mine, rather than an *essential* property.

172

172

Locke on Personal Identity

- John Locke saw personal identity as constituted by *continuity of consciousness*.
  - This enabled him to secure identity for "forensic" purposes (afterlife reward and punishment etc.) without having to worry about our ignorance of the underlying "substance" (which may be immaterial, and might change, e.g. *Essay* II xxvii §§12-14).
- Locke's theory has problems (see Appendix slides below), but significant intuitive appeal.
  - This can be brought out by *thought-experiments* such as his prince who wakes in the body of a cobbler (§15). Or for a more modern example …

173

173

Williams' Thought-Experiment

- Suppose your brain is to be switched with mine, after which various things will befall "us". Which future person are we each more concerned about (from a "selfish" first-personal point of view), my-body-your-brain, or your-body-my-brain?
  - It is very plausible that our "selfish" concern would track apparent psychological continuity (and hence the brain), exactly as Locke would expect.
  - But note that *the extent of such continuity is not knowable a priori*: maybe transferring the brain would lead to a "reboot" and loss of all memory; or change of body would change personality.

174

174

Sleep, Coma, and Brain Identity

- One very obvious problem with Locke's theory is that our memory and consciousness do not seem to be continuous. We sleep, forget, and can even lapse into coma before recovering.
- In Williams' thought experiment, however, brain continuity can plausibly "bridge over" the gaps in conscious awareness or memory (like a computer which, when restarted, resumes where it left off).
- So maybe *brain* continuity is the key? This would also remove the problem of seeing a tiny embryo – prior to its having a brain – as a person.

175

175

Split Brains

- But things are not so simple. If the *corpus callosum* – the connection between the cerebral hemispheres – is surgically cut (by *commissurotomy)*, then a single brain can give rise to two conflicting behaviours, for example, the right hand apparently acting so as to prevent the left hand from doing something!
- Now suppose that a single brain were to be split and put into two bodies: we could have two new persons, each having brain *and* memory continuity with the original person.

176

176

Star Trek Transportation

- Suppose Star-Trek-style teleportation by "transporter beams" were developed: my body is copied atom-by-atom to a new place.
  - How should I view this? Am I in fact being *killed*, and then a replacement being newly created elsewhere, with the false memory of being me?
  - But what if it became common, accepted, and *apparently* harmless? Suppose long-range flights cease to operate because transporter beaming is so much quicker and cheaper, and I want to visit Australia: *then* should I trust it not to kill me?

177

177

Brain Duplication

- If Star-Trek-style transportation were to become possible, then so – apparently – would *duplication*!
  - This would raise a host of problems not only about personal identity (e.g. which duplicate, if either, is *really me*?), but also about legal and moral rights (which duplicate owns my house? which is my wife's real husband? etc.)
  - But note *we cannot know in advance whether this is even possible*: perhaps there is "soul-stuff" that would not be physically duplicated.

178

178

Parfit and Degrees of Identity

- If our notion of strict personal *identity* is threatened by such things, Derek Parfit suggests we should treat it instead as a matter of degree, and focus on *(psychological) survival* rather than *identity*.
  - Recall Locke's insistence that personal identity is *forensic*: what's important is not the abstract notion of identity, but our *concern* for our future self (or selves), and related moral/legal notions.
  - In a split brain case, indeed, we would probably care about the future of *both* future individuals – so our concern for our future "self" is divided.

179

179

What *Should* We Care About?

- If what really matters about personal identity is *continuity of concern*, i.e. *caring* about my future "self" (or "continuants"), then it seems pertinent to investigate what it is *rational* to care about in this way.
  - It is intuitively plausible that there are special reasons for caring about *my future self*; reasons that wouldn't apply to anything else.
  - A popular theory claims that, in fact, *we do* only *ultimately* care about our future selves.

180

180

APPENDIX

Notes on Locke, Reid, and Hume

181

181

Locke on the Identity of Matter

- The appropriate *criterion of identity* over time depends on the kind of thing it is:
  - A single particle of matter retains its identity as long as it continues in existence. So *a* and *b* are *the same* particle of matter if there is a continuous history connecting them.
  - The identity of a body of matter depends on the identity of the particles that constitute it. It's the same body *iff* it's the same collection of particles, even if differently arranged. (However this too seems to require a *continuous history*.)

182

182

Sorites Arguments

- A sorites argument is one that depends on *iteration* of a small variation, often leading to an absurd result, for example:

  A man with just 1 hair is bald.

  If a man with just *n* hairs is bald, then a man with just *n+1* hairs is bald too.

  ∴ A man with 2 hairs is bald.

  ∴ A man with 3 hairs is bald.

  …

  ∴ A man with 10,000 hairs is bald.

183

183

Why Should Identity of Material Bodies Be So Strict?

- Suppose we relax Locke's strict criterion of bodily identity, by saying subtraction of 1 atom makes no difference to such identity:
  - Remove just 1 atom from a body, then it will still the same body;
  - Then remove another atom, and so on …
  - Since identity is supposed to be *transitive*, i.e. $(x=y) \wedge (y=z) \rightarrow (x=z)$

  removing 10,000 atoms won't affect identity!

184

184

Locke on the Identity of Organisms

- A plant or animal is not a mere collection of matter, but "*an Organization of Parts in one coherent Body, partaking of one Common Life"* (*Essay* II xxvii 4).
- Hence the identity of an organism over time is constituted by a continuous history of such an organised life.
- Likewise the identity of a man or woman: a human is a living organism.

185

185

Locke on Personal Identity

- A person is "a thinking intelligent Being, that has reason and reflection, and can consider it self … the same thinking thing in different times … which it does only by that consciousness, which is inseparable from thinking … and … essential to it" (§9).
- Hence personal identity over time is a matter of *continuity of consciousness* (which depends on memory).

186

186

Memory and Quasi-Memory

- One problem with basing personal identity on memory is that something only *counts as a genuine memory* if it concerns one's own experiences. Suppose I wake up apparently remembering your experiences: would this count as a memory? If not …
  - the criterion is circular: I have to know that it was really me to know that it's a real memory;
  - to avoid circularity, we can talk of "quasi-memory", that is, *apparent* memory.

187

187

Thomas Reid's Problem Case

- Suppose that a brave young officer can remember what he did as a child, and the later general can remember what the young officer did but not what the child did.
- It seems that according to Locke we have:

  Officer = Child
  General = Officer
  General ≠ Child

  But again, identity is understood to be a *transitive* relation, so this is inconsistent.

188

188

"Ancestral" Relations

- *x* is an ancestor of *y* if either:
  - *x* is a parent of *y*; or
  - *x* is a parent of an ancestor of *y*.
- We can avoid Reid's problem by similarly defining an "ancestral" memory relation:
- Person *x* is m-identical to person *y* if either:
  - *x* remembers an experience of *y*; or
  - *x* remembers an experience of someone who is m-identical to *y*.

189

189

Hume on Personal Identity

- In his *Treatise of Human Nature* (but not in the *Enquiry*), Hume provides a very famous but rather confusing discussion of personal identity.
- This is framed within his (Lockean empiricist) project to find the experiential origin of our ideas:

  "For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch *myself* at any time without a perception, and never can observe any thing but the perception."
  (*T* 1.4.6.3)

190

190

The Bundle Theory of the Self

- Unable to find any impression (i.e. sensation or feeling) of the self as a simple continuing existent, Hume presents his "bundle theory":

  "mankind … are nothing but a bundle or collection of different perceptions which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. Our eyes cannot turn in their sockets without varying our perceptions. Our thought is still more variable … The mind is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety … There is properly no *simplicity* in it at one time, nor *identity* in different … They are the successive perceptions only, that constitute the mind …" (*T* 1.4.6.4)

191

191

The Self as a Fiction

- Hume concludes that the self is a *confusion* or "*fiction*", and hence a notion that is not philosophically respectable and cannot be precisely analysed for that reason.
- But we can resist this conclusion by relaxing his implicit requirements:
  - Why should we suppose that the self has to be a *simple* thing?
  - Why should we suppose (as Hume does in the *Treatise*, repeatedly) that *genuine* identity over time requires qualitative unchangingness?

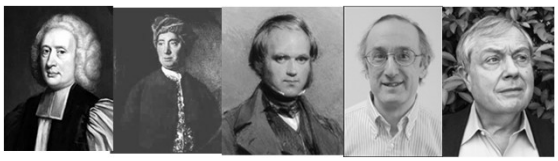
192

192

General Philosophy

Prof. Peter Millican, Hertford College

Lecture 6: Identity, Self-Interest, Morality and Free Will



193

Identity and My Future Concern

- At the end of the last lecture, we saw that under certain circumstances (split brains, transplants, imagined duplication), our standard notion of *personal identity* would seem to be threatened.
  - Derek Parfit suggests that in such circumstances, I should not worry about strict *identity*, but focus instead on *survival*, and feel future concern for *my psychological continuants* even if they are not strictly *myself*.
  - But how does this fit with the popular view that there is something special about myself, which makes *me* a *uniquely appropriate* object of my future concern?
  - *Psychological egoism* goes further, claiming that human nature makes me *the only* object of my future concern.

194

194

Psychological Egoism claims that …

… *all of our intentional actions are selfish*, in the sense of *aiming ultimately for our own benefit*.

- A *factual (psychological) claim*, but often combined with the *normative* claim that self-interest is uniquely *rational*.

- Does not claim that all actions *achieve* our benefit:
  - We might miscalculate;
  - We might not know what will bring us benefit or harm;
  - We might be unlucky, or fail in various ways.
- "Benefit" here is most commonly understood in terms of our pleasure and absence of pain.
  - The theory is then (egoistic) *psychological hedonism.*

195

195

Instrumentality, and Altruism

- Psychological Egoism can accept that we desire things other that our own self-interest, e.g. for the benefit of our family, friends, country, etc.
  - However it asserts that these other desires are always *instrumental*: things desired only for the benefit they bring to us in the form of pleasure etc.
  - The crucial claim is that the only thing we desire *ultimately* – rather than for the sake of something else – is our own benefit.
  - This is to reject the possibility of genuine *altruism*, understood as *acting for the (ultimate) benefit of someone else, at potential cost to oneself.*

196

196

Some Obvious Counter-Evidence

- Normal, socially well-adjusted, apparently rational people will often do things like these:
  - helping a stranger with a heavy bag or door;
  - holding back in a queue;
  - helping an infirm person to cross a road;
  - returning lost property (e.g. a dropped £20 note);
  - caring for sick or elderly relatives;
  - giving to, or helping with, charities (e.g. disaster relief);
  - taking out life insurance for the benefit of young children.
- These *seem* unselfish, so the psychological egoist owes us an argument to the contrary …

197

197

The Nature of Intentional Action: The "A Priori Argument"

- In standard cases, to do action *A intentionally* is to do *A knowingly* and *for a purpose*, usually with a view to bringing about some outcome (*O*, say).
- But if *bringing about O* is to provide me with such a known purpose, then *I must desire O*.
- So when I do *A*, I am doing it *in order to satisfy my desire for O*.
- Hence I am doing *A* in order to experience *the satisfaction that I get from O's coming about*.
- It is, therefore, a selfish act as previously defined.

198

198

Doubts about the A Priori Argument: Applying Hume's Fork

- Is Psychological Hedonism supposed to be:
  - A Relation of Ideas (i.e. "true by definition") in which case it can be proved a priori (by pure rational argument), but cannot imply anything about what actually happens in the world;
  - A Matter of Fact?
    in which case it cannot be proved a priori, but must be argued on the basis of empirical evidence (e.g. psychological investigation).

199

199

A Seductive Ambiguity

- Satisfaction *of a desire* is a *logical* or *semantic* relationship between a desire and an outcome: my desire for *O* is *satisfied* if *O* comes about (whether or not I am aware of this).
  - In a similar way, my guess that *P* is *true* if *P* is the case, whether or not I find out about it.
- Satisfaction *of an agent* is a *psychological* matter, typically involving feelings of pleasure on contemplating the outcome – in this sense my satisfaction at the coming about of *O* is the personal pleasure I get from knowing about it.

200

200

(Semantic) Satisfaction Needn't Be (Psychologically) Satisfying

- Known satisfaction of our desires *typically* does bring us psychological satisfaction, but neither type of "satisfaction" *implies* the other:
  - Semantic satisfaction of a desire can come about long after the agent is dead (e.g. my desire for my children to thrive after my death);
  - Psychological satisfaction can be based on false information (e.g. a dying mother is told her kidnapped son is safe, when he is dead).

201

201

The Flaw in the Argument

- Consider again the crucial step in the "A Priori Argument", appropriately clarified:
  - So when I do *A*, I am doing it *in order to [semantically] satisfy my desire for O*.
  - Hence I am doing *A in order to experience the [psychological] satisfaction that I get from O's coming about*.
- This is simply a non-sequitur: *desiring O* is *not* the same as *desiring the psychological satisfaction that O will bring me*.

202

202

"Utility": A Related Ambiguity

- Economic reasoning standardly assumes that we act to maximise our own personal "utility function".
  - This is commonly *misinterpreted* as presuming that such behaviour has to be *self-interested* (by wrongly taking *my utility* to be a measure of *my own pleasure or benefit*).
- But as the "Introduction to Microeconomics" lectures say:
  - "We try to reverse engineer *whatever it was [agents] could have been trying to achieve* … This only requires that agents behave consistently [and hence] … behave as if they are maximising something which can be described … by an objective function. … economists call this something 'utility' and the function which describes it a utility function." (Sanjay Jain, MT 2018, slide 30)

203

203

"But surely, when I try to achieve some outcome, and succeed, I do get some personal pleasure from achieving it. So my 'utility' and pleasure match up."

- The first claim is plausible in those cases where I do get to know of my success (but not otherwise).
  - *Even when this is so, however, it doesn't follow that I perform the action in order to obtain that pleasure*.
  - Indeed, this would be incoherent: I can't desire to get pleasure from achieving a desire, unless I have some *other* desire to achieve. *That my desires be satisfied cannot possibly be my only motivating desire.*
  - Psychological egoism gets the order back-to-front: the pleasure typically comes from having achieved something that I wanted to achieve *for its own sake*.

204

204

Oxford Lectures on General Philosophy, 2018-19

The "Paradox of Hedonism"

- Henry Sidgwick famously noted that:

  "the impulse towards pleasure, if too predominant, defeats its own aim".

- If I set out to achieve pleasure or psychological satisfaction, putting this ahead of other interests or desires, then I will almost certainly fail.
  - This is no real paradox. *Most* satisfactions in life arise from pursuing and (sometimes) achieving our aims.
  - So it's not surprising that an otherwise aimless life devoted only to superficial standalone pleasures (food, drink, sex, drugs, wealth) typically leads to *unhappiness*.

205

205

The Cart Before the Horse

- Suppose I insure my life so that my wife and children will prosper after my death.
  - The psychological egoist says that I do this to remove feelings of unease about their future suffering etc.
  - But *if I don't care at all about their wellbeing*, then why would I feel any such unease? And *if I do care about their wellbeing*, *that* is the obvious motivating factor.
  - As Joseph Butler pointed out, my caring for them is the *cause* of my feelings of unease, not its *result*.
- The silliness of this sort of psychological egoist explanation can be seen if we imagine a scenario where I help an infirm old lady across the road …

206

206

A Ridiculous Psychology

"I see an old lady wanting to cross the road. Of course, I don't care in the slightest about her wellbeing – only about my own pleasure – but I foresee that if I do help her across the road, I shall (*quite unaccountably*) feel some pleasure from having done so. So I'll go and help her, purely in order to get that pleasure."

"It's a shame nobody else is around to see me do this, but nevertheless, my anticipated feeling of pleasure is enough to motivate me to help her."

207

207

More Plausible Psychology

"I see an old lady wanting to cross the road. I don't want her to get hurt, so I'll go and help her."

This explanation is simple, straightforward, and based on an entirely familiar phenomenon: that we do in fact care about others hurting themselves (assuming we're not psychopaths). Moreover – as we shall see – this care can itself be fairly easily explained by evolution, given our mutual social dependence as a species.

208

208

False Intellectualism

- Recall Hume on induction: if we were to believe only what we can justify by reason, then we would believe *nothing* about the unobserved.
- Likewise, our motivations do not generally start from *rational calculation of our interests*, but from *feelings* that have non-rational causes:

> "Animals are found susceptible of kindness, both to their own species and to ours; nor is there, in this case, the least suspicion of disguise or artifice. Shall we account for all their sentiments too, from refined deductions of self-interest? Or if we admit a disinterested benevolence in the inferior species, by what rule of analogy can we refuse it in the superior?"
>
> (Hume, *Moral Enquiry*, Appendix 2.8)

209

209

An Evolutionary Perspective

- Evolution very easily explains our concern for our own offspring and (given the helplessness of infants) enduring love for our parental partners:
  - People who have these tendencies will, on average, have more surviving offspring than others, and therefore the genes that give them such tendencies will spread preferentially into the next generation;
  - Richard Dawkins' metaphor of "selfish genes" implies *unselfish* parents: the genes mould us to sacrifice our personal interests for those of our offspring, which are vehicles for survival of the genes themselves.
- Evolution works through instincts and emotions: far more efficient and reliable than calculation.

210

210

- A last-ditch defence of psychological egoism:
  "You care about your children, but only because you see them as *part of yourself*. (Indeed, they share your genes, and you want those to prosper.) So this is still fundamentally *self-interested*."
  - Taken literally, this is just silly. Of course I know full well that my children are not me! (And until recently nobody knew about genes, so the claim that people historically cared about those is ludicrous.)
- Perhaps the claim is "You care about your children *as though* they were part of you"?
  - But that is simply to acknowledge the falsity of psychological egoism: I care really seriously about something that is other than myself!

211

211

Wider "Identities"

- People who "identify" with a cause – e.g. religious, national, political, or social – can often care more about it than they do about their own personal wellbeing.
- But this gives no reason for supposing that they are confused about their personal identity, or that they are irrational.
- The claim that we *should* only care about ourself is as lacking in justification as the claim that we *do* only care about ourself.

212

212

No "Ought" from an "Is"

- Hume (in *Treatise* 3.1.1.27) notoriously suggests that it is impossible to infer a normative *"ought"* from factual *"is"* premises.
- Thus any argument that we *should* do – or care about – something must start from a (potentially disputable) normative premise.
- If this is right, no argument could rationally force us to relinquish our *most fundamental* normative commitments. Reason cannot *require* either selfishness or altruism.

213

213

The Obligations of Morality

- Some philosophers – most famously Immanuel Kant – have argued that moral obligations are derivable from purely *rational* considerations. But such arguments have proved unconvincing.
- Many others – from Plato onwards – have argued that morality can be justified in terms of *self-interest*. This too seems highly dubious, unless there is divine judgement after we die.
- We may achieve a more balanced view if we see our moral and selfish attitudes as *both* arising from natural causes.

214

214

- Hume's story of the origin of morality fits easily within an evolutionary perspective:
  - There is a "natural appetite between the sexes, which unites them together, and preserves their union, till a new tye takes place in their concern for their common offspring". (*T* 3.2.2.4)
  - A "family immediately arises; and particular rules [are] found requisite for its subsistence". (*EPM* 3.21)
  - When "several families unite together into one society, … the rules, which preserve peace and order, enlarge themselves to [that] extent". (*EPM* 3.21)
  - "The boundaries of justice still grow larger", with a corresponding "natural progress of human sentiments", when different societies interact "for mutual convenience and advantage". (*EPM* 3.21)

215

215

Modelling the Evolution of Morality

- Hume's story presupposes that people have appropriate emotional resources (empathy etc.) to enable cooperation to develop.
  - Evolution can easily explain our tendency to care for our children and cooperate with others who share our genes (by "kin selection", as explained earlier), but why others?
- Robert Axelrod conducted influential computer experiments on the Iterated Prisoners' Dilemma, which help to explain the evolution of non-kin cooperation and altruism.

216

216

The Prisoners' Dilemma

- The "Prisoners' Dilemma" nicely illustrates how morality can bring benefits over self-interest. The two players independently cooperate or defect – neither of them knowing in advance what the other will do – with payoffs as follows (symmetrical, shown here in the first person):

	You cooperate	**You defect**
I cooperate	**3** *(Reward)*	**0** *(Sucker's Payoff)*
I defect	**5** *(Temptation)*	**1** *(Punishment)*

217

217

Repeating the Interactions

- In the "one-shot" Prisoners' Dilemma, it seems that the only "rational" thing to do is defect (since whatever you choose to do, I maximise my own payoff by defecting), even though this leads to less optimal outcomes for both parties.
- But if interactions are *repeated* ("iterated"), and later behaviour can depend on earlier outcomes, then we can set up an evolutionary contest between different *strategies.*
  - It turns out that "nice" strategies (which never defect first) do better than "nasty" ones.
  - Hence cooperative instincts are naturally explicable.

218

218

Three IPD Strategies

- ALLC – naïvely cooperative
  - Always cooperate with the other guy, even if he's been consistently nasty to you.
- ALLD – nasty defector
  - Always defect on the other guy, no matter how he's treated you.
- Tit-For-Tat – nice but discriminating
  - Start out being cooperative, but then reciprocate: behave in exactly the the same way that the other guy did on the previous turn.

219

219

Snapshot of an IPD

Every cell has a sequence of 10 interactions with each of its 8 neighbours. Then the most successful strategy in the neighbourhood "wins the cell". Most were initially naïve cooperators (RED), but the nasty defectors (BLUE) have ruthlessly taken advantage of them. Small groups of tit-for-tats (GREEN) survive, because they support each other and don't allow the defectors to exploit them beyond the first turn. Before long, the greens will dominate and the blues disappear.

220

220

Morality and Free Will

- Discussions about the evolution of moral behaviour can easily raise traditional worries about free will:
  - We think of people as *morally responsible* for what they do "freely" (in the appropriate, morally relevant sense), but we don't usually blame them for what they are *forced* to do.
  - If my behaviour is *causally determined* by my genetic makeup, circumstances etc., and could in principle have been predicted before I was born, then how can I properly be blamed for it?

221

221

Determinism

- Determinism is the thesis that all events are "determined" by prior causes. So for any event *E*, given the causal laws governing the universe, and the prior state of the world, *E* was inevitable.
  - "[It is agreed that] matter, in all its operations, is actuated by a necessary force, and that every natural effect is so precisely determined by the energy of its cause, that no other effect, in such particular circumstances, could possibly have resulted from it. …" (Hume, *Enquiry* 8.4).
  - Hume went on to argue that this equally true of human actions.

222

222

Laplace on Determinism

- Pierre Simon Laplace gave one of the most famous statements of determinism, in 1814:

> "We may regard the present state of the universe as the effect of its past and the cause of its future. An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes. …" (*A Philosophical Essay on Probabilities*)

223

223

From Purpose to Mechanism

- Recall how in the Early Modern Period, physical explanation moved from Aristotelian *purpose* (stones striving to reach the universe's centre; stars travelling in perfect circles; nature abhoring a vacuum etc.) to the *mechanism* of Galileo, Descartes and Boyle, then on to the hugely successful physical theory of Newton.
  - Thus the status of *purpose* as an ultimate cause within the natural world is potentially threatened;
  - If our own animal bodies are part of the physical causal nexus, this may seem to leave no place – even within our own behaviour – for "genuine" purpose or free will of the kind previously presupposed.

224

224

Taxonomy of Traditional Positions

- Is the thesis that we have genuine free will compatible with determinism?
  - **NO**: Then at most one of them can be true …
    - We have free will; determinism is false = Libertarianism
    - We do not have free will; determinism is true = Hard determinism
  - **YES**: They are compatible = Compatibilism
    - We have free will; and determinism is true = Soft determinism

225

225

The Consequence Argument
(Peter Van Inwagen)

- If determinism is true, then all human actions are causally determined consequences of the laws of nature and prior conditions.
- Hence I cannot do otherwise than I actually do, except by falsifying the laws of nature or changing past conditions.
- But clearly I can't do either of these.
- If I cannot do otherwise than I actually do, then I do not have free will.
- So if determinism is true, we lack free will.

226

226

A Compatibilist Response

- "'Free will' matters to us because it involves being able to *choose what we want* and being able to *achieve our ends* accordingly, without being prevented from doing so."
- "So as long as what I did was determined by *my own thought processes, guided by my own desires and purposes*, then what I did was indeed 'free'."
- "Under this conception, *where those purposes and thinking capabilities came from* is irrelevant. Being free is simply a matter of being able to do what I want to do (and in the way that I decide to do it)."

227

227

Hume's Notion of "Liberty"

- Hume's definition of "liberty" (i.e. free will) is somewhat in this spirit, and evidently consistent with causal determinism:

> "By liberty, then, we can only mean *a power of acting or not acting, according to the determinations of the will*; that is, if we choose to remain at rest, we may; if we choose to move, we also may. Now this hypothetical liberty is universally allowed to belong to every one, who is not a prisoner and in chains." (*E* 8.23)

228

228

General Philosophy

Prof. Peter Millican, Hertford College

Lecture 7: Free Will, Causality, Explanation, and Moral Responsibility

229

Determinism, Free Will and Morality

- The Incompatibilist View:
  If determinism were true, then we would be helpless pawns, all our actions determined by causal laws that leave us no "power of doing otherwise", so that moral assessment would be entirely inappropriate.
- The Soft Determinist View:
  Determinism is true, but moral assessment of our actions is entirely appropriate, because these are caused by – and manifest – our desires, purposes, and mental characteristics, which can properly be judged as morally good (virtues) or bad (vices).

230

230

"I Could Have Done Otherwise"

- It seems plausible that for an action of mine to have been genuinely free, it has to have been possible for me to do otherwise than what I actually did.
  - So my doing of *A* was not free unless I was able to choose something else (e.g. *B*) instead.
- This can support incompatibilism, if *ability* is interpreted in terms of causal possibility.
- Many compatibilists also accept the principle, but they typically interpret it differently …

231

231

- Libertarian: "You cannot have been genuinely free, if in fact you had no power to do anything other than what you actually did."
- Compatibilist: "Agreed. But if I had wanted to do *B* instead of *A*, then *my own thought processes, guided by my own desires and purposes*, would have caused me to do *B* instead of *A*. *There was no external barrier to my doing B instead of A.* So in fact I did have the power to do otherwise."
- Libertarian: "But on your principles it was not open to you *to want B instead of A*: your desires – like your actions – were causally determined, so as I said, you could not have done anything other than what you actually did."

232

232

Choice and "Could Do Otherwise"

- Freedom seems very closely connected with the concept of choice, and this may well lie behind the "could do otherwise" intuition.
- But the notion of choice is quite slippery, and we need to consider carefully exactly what we mean by it, and what it implies:
  - Suppose someone holds a gun to my head and asks for my mobile phone: do I have a choice?
  - Suppose a clever neuropsychologist can predict that I'm going to hit you: do I have a choice?

233

233

"I had no choice"

- This could – arguably – mean any of the following, which need to be distinguished:
  - What happened was in no way dependent on my decisions or actions.
  - My actions were physically forced upon me.
  - My actions were predetermined in some way by non-rational factors (e.g. drugs, brainwashing).
  - My actions were predetermined by my own desires and consequent reasoning.
  - It was blindingly obvious what I should do (so "I had no choice" is rather like "it was no contest").

234

234

Oxford Lectures on General Philosophy, 2018-19

The Paradigm Case Argument

- We learn the meaning of the word "choice" from early childhood. To make a choice is, standardly, to be presented with a range of alternatives – say between ice cream, cake, and fruit – and then to select one according to our own preferences.
- This is a paradigm of <u>what we mean</u> by a choice. So it's abusing words to deny that it's a choice just because it's determined.
- Of course settling our use of words doesn't decide the important issues of determinism and moral responsibility, though it can remove confusions.

235

235

"Give Me the Phone, Or Else!"

- If you lend me your phone, but I am then told to hand it over at the point of a gun, I am acting under coercion but still acting from choice.
  - I choose to hand over the phone <u>given this situation</u>. (And every choice we make is in some specific situation with a specific range of options.)
- We might want to deny I made a (free) choice on the grounds that I am not *blameworthy* here.
  - But to avoid blame, there is no need to plead diminished responsibility here: <u>in that situation</u>, what I chose to do was the *right thing to do*.

236

236

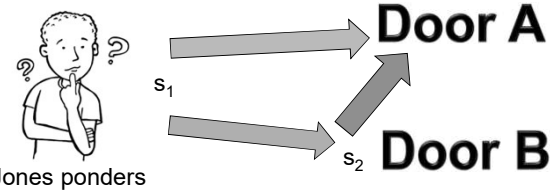
The Principle of Alternate Possibilities

- Harry Frankfurt states this principle ("PAP") in terms of moral responsibility rather than free will:

  "A person is morally responsible for what he has done only if he could have done otherwise."
- However Frankfurt himself wishes to <u>*deny*</u> the principle, developing so-called "Frankfurt cases" in which Jones can be morally responsible for choosing *A* even where any tendency to choose an alternative would have been thwarted (e.g. by the machinations of the devious Black). In that sense, Jones could not have done otherwise.

237

237



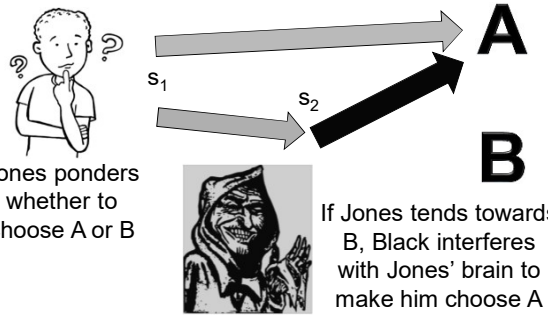
Jones ponders whether to choose Door A or Door B

If Jones heads for Door B, he finds that it is locked, and so has to use Door A anyway.

It seems that Jones could choose Door A <u>freely</u> (by the top route) even though Door B's being locked means that he cannot do otherwise than use Door A.

238

238



Jones ponders whether to choose A or B

If Jones tends towards B, Black interferes with Jones' brain to make him choose A

It seems that Jones could choose A <u>freely</u> (by the top route), even though Black ensures that he cannot do otherwise.

239

239

Challenging Frankfurt

- Frankfurt cases tend to be rather farfetched (e.g. Black manipulates Jones' brain if he shows signs of choosing *B*), and it is anyway not so clear that they contradict PAP:
  - Suppose Jones freely chooses *A* (in situation s_1), and seems morally responsible for doing so.
  - Jones could have inclined towards choosing *B*, in which case Black would have intervened to force him to choose *A* (in situation s_2). But choosing *A* in s_2 is doing otherwise than choosing *A* in s_1. So Jones could indeed have done otherwise.

240

240

Power Over Our Desires?

- If we accept PAP, it becomes crucial how we interpret "could have done otherwise".
  - The compatibilist interprets this as "could have done otherwise *if I had wanted to*" (e.g. there was no external barrier to my doing otherwise);
  - The incompatibilist insists that this is empty unless I could have had different desires.
- Should we take our desires as "fixed" (as many philosophers and economists do)? Or is there sense in wishing for the possibility of having different desires?

241

241

Autonomy of Desire

- There seems to be a significant difference between those who are *autonomous* – able to control their desires to some extent – and those (such as drug addicts or obsessives) who are, in a sense, "slaves to their desires".
- Likewise, we are subject to many strong influences that attempt to manipulate our desires, from advertising, marketing and fashion to more sinister methods such as use of pheromones to affect our mood (e.g. in casinos).

242

242

Higher-Order Desires

- Harry Frankfurt distinguishes between "first-order" desires (e.g. to smoke a cigarette) and "second-order" desires (e.g. to quit smoking, and to cease to desire them).
- If our second-order desires are unable to overcome our first-order cravings, then we are not fully autonomous and thus less "free".
- This enables various degrees of freedom to be distinguished (and can fit within either a libertarian or compatibilist framework).

243

243

Higher-Order Reflection

- In a similar way, we achieve more intellectual autonomy if we are able to reflect critically on our own commitments, rather than being "trapped" by the accident of where we happen to be situated in terms of such things as:
  - Economic and political allegiance
  - Moral and religious assumptions
  - Scientific understanding and paradigms
- Appreciating our position within a history of hugely changing paradigms can help here.

244

244

Children, Animals, Robots

- Recognising such degrees of autonomy is also very plausible as applied to infants, who typically gain in self-control and self-determination as they grow.
- We might also – in a similar spirit – allow some degree of "freedom" to other animals …
- … and even to "intelligent" robots, if these are designed with "purposes" that have a sufficiently sophisticated structure?

245

245

Isn't Deterministic Autonomy Enough?

- Higher-level autonomy looks genuinely valuable; but what further value could there be in having the indeterministic possibility of different desires?
  - In many cases (e.g. when calculating a chess move), *we want the operation of our faculties to be reliably predictable* – there's no virtue in "randomness" here.
- The "intuition" behind the desire for indeterminism seems to be that this is required to make room for genuine *responsibility*: a distinctive input *from me* that cannot be ascribed to (and hence could not be predicted from) the situation prior to my action.

246

246

Determinism, Indeterminism, and Responsibility

- But this "intuition" can be misleading. First, note that even if we are completely determined, *this does not imply that we play no essential role in what happens*. A bomb causally determined to blow up still has a distinctive impact on a situation!
- The indeterminist has yet to explain *why* indeterminism is supposed to be essential to "genuine" responsibility. For example, it is hard to see why a random decision process should make me more "genuinely" responsible for what I do than acting on a settled and consistent purpose.

247

247

Hume: Morality requires Determinism

- Hume argues (*E* 8.28-30) that viewing human behaviour as causally necessary, so far from being *contrary* to morality, is actually *essential* to it, since blame and punishment are useful and appropriate only where actions are caused by the agent's durable character and disposition:

> "Actions are, by their very nature, temporary and perishing; and where they proceed not from some cause in the character and disposition of the person who performed them, they can neither redound to his honour, if good; nor infamy, if evil."

248

248

Is Causal Explanation Exclusive?

- A tempting mistake here is to assume that deterministic causal explanation *excludes* other types of explanation:
  - "If the causal process *X* fully explains event *E*, then there's no room for anything else to explain, or [hence] be responsible for, *E*."
- This mistake seems to be implicit within some common incompatibilist lines of thought, and Hume himself, though a determinist, also fell victim to it (see slides in Appendix).

249

249

The Varieties of Explanation

- We have seen how scientific developments have introduced new forms of explanation:
  - Purpose (Aristotle etc.)
  - Mechanism (Galileo, Descartes, Boyle etc.)
  - Quantitative forces (Newton etc.)
  - Quantum, space-time curvature (Einstein etc.)
  - Evolution by natural selection (Darwin)
- Evolutionary explanation is entirely compatible with determinism but very different in structure, and can be applied in situations where deterministic causal explanation is impossible …

250

250

The Logistic Equation

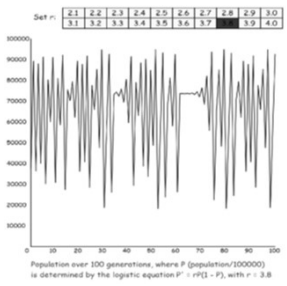
- Suppose some environment supports an absolute maximum of 100,000 insects, and the current population, expressed as a proportion of 100,000, is *P* (e.g. if the population is 47,200, *P* = 0.472).
- In each generation, the insects reproduce by some multiplier *r* (e.g. *r* = 3.8), except that the population is also reduced, owing to habitat depletion, by a factor of (1 – *P*).
- Hence the population in the next generation is given by the so-called *logistic equation*:

$$P' = r\,P\,(1 - P)$$

251

251

Chaos and Quasi-Randomness



A surprising discovery (highlighted by Robert May in 1976) is that if *r* is 3.57 or greater, iterations of the logistic equation generate *chaotic* behaviour, in which the pattern of development exhibits *sensitive dependence on initial conditions*. So even if things are actually entirely deterministic, they look random (and, given the limits of our measurements, they cannot be predicted – or even retrospectively explained except in general terms – on a deterministic basis).

252

252

Oxford Lectures on General Philosophy, 2018-19

Evolutionary Explanation: An Example

- A Famous Biological Puzzle:
  - Why is the ratio of males to females close to 1:1 in humans, dogs, horses, cattle, … ?
    - John Arbuthnot, "An Argument for Divine Providence, taken from the constant regularity observ'd in the births of both sexes" (1710).
    - Darwin (1871) considers monogamy as relevant: the 1:1 ratio is evolutionary beneficial for humanity.
    - Might it just be a statistical effect of biological mechanisms (e.g. separation of gametes)?
    - Or purely random?

253

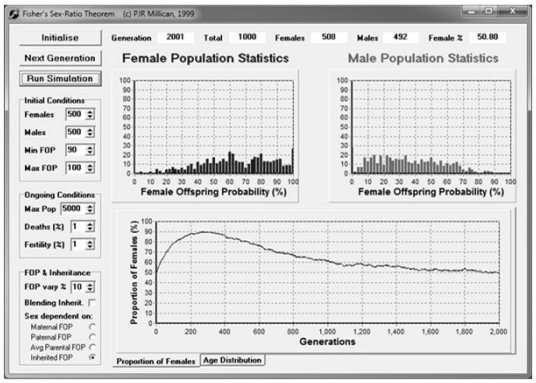
253

A Computerised Thought-Experiment

- Imagine a sexually reproducing species that can influence the sex of its offspring through a "Female Offspring Probability" (FOP) gene:
  - This determines the probability that any new offspring will be female (from 0% to 100%).
  - The gene is inherited in the usual way from one of the parents, and subject to small (quasi-) random variation, say ± 10%, in its probability value.
  - Mating between males and females is (quasi-) random, as is death of individuals.
  - We start the simulation with all FOP values initialised to 90%+, and run it …

254

254



255

255

Why Do The Sexes Equalise?

- (One Level of) Causal Explanation
  - "Female F_{61}, with a FOP gene of 93%, mated with male M_{273}, with a FOP of 97%, producing new female F_{501}, inheriting FOP value of 94%; then female F_{372}, …" [and so on for hundreds of thousands more]
- The Evolutionary Explanation
  - If the population is mostly female, then males will on average have more offspring than females. Hence those individuals who have a low-value FOP gene – and hence have more male offspring – will tend to have more ***grandchildren*** than others, and hence their low-value FOP genes will spread preferentially …

256

256

Another Non-Causal Explanation

"Why did he / she / it play

15. Rxf6+ ?"

"Because then Black can only save the queen with

15. … Kxf6

after which White wins by force with

16. Qe5+ Kf7

17. Qe7+ Kg8

19. Qf8 checkmate."

257

257

Purposive Physical Systems

- The example of a chess computer illustrates how a physical system can operate so as to respect logical/purposive constraints.
- Then it would clearly be fallacious to argue:

  "The computer chose Rxf6+ because it was physically determined to do that, so it didn't choose it on any *logical ground*, and hence we have no reason for taking its decision seriously."
- Presumably our brains have evolved so that our reasoning likewise generally responds to rational constraints (that's why brains are so useful!).

258

258

Causal Explanation *is not* Exclusive

- So though tempting, it is *seriously mistaken* to assume that determinism would make human action ultimately metaphysically indistinguishable from the law-governed motions of physical things.
- One and the same "event" can be explicable in more than one way, e.g. in terms of physical laws, *and* in terms of "plans and purposes" (whether conscious, implemented in a computer program, or implicit in an evolutionary context).
  - Indeed even *purely* physical events can be explicable in more than one way, e.g. in terms of superficial chemical "laws" *and* the underlying quantum reality.

259

259

But Is It Really *Me* Playing Chess?

- Suppose I am contemplating a move in chess, calculating the possibilities. I see a way of forcing checkmate, and play accordingly.
  - What I did was determined by *my desire to win*, *my knowledge of the game and what winning requires*, and *my calculation of how winning could be achieved*.
- At this point, an incompatibilist might object:

  "But then it wasn't really a free move *of yours*. If it was fully determined by your state of mind, desires, knowledge, calculating abilities, power of movement etc., then *you* weren't really responsible for it."

260

260

Our Place in the Causal Nexus

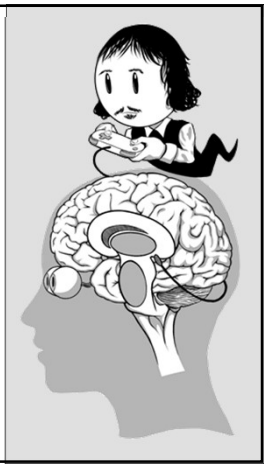
- This incompatibilist seems to be thinking of my "self" as a distinct, immaterial soul that lies outside the physical causal nexus.
  - But such a view, like Descartes', has great difficulty explaining how it would even be possible for such a "self" to influence physical events.
  - Nor does it fit with our understanding of evolution.
  - And it is hard to see any solid objective evidence for the view. We seem to be embodied, evolved animals, who act in the world as *part of* the physical causal nexus.

261

261

The Cartesian "Ghost in the Machine"

- The Cartesian self is entirely immaterial, yet somehow controls my material body using my brain and nerves (and communicating with these through my pineal gland).

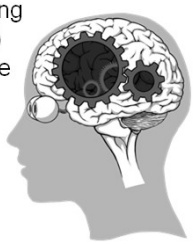


262

262

The Mechanical Caricature

- Equally unrealistic is the idea that I have cogs whirring away in my brain, blindly generating action without intelligent agency.
- On the contrary, my brain has evolved in such a way that its information processing "mechanisms" can (with training) conform, for example, to effective calculation of chess moves.



263

263

"If only I could think *freely*, without the causal interference of my neurons"

"The light dove, cleaving in free flight the thin air, whose resistance it feels, might imagine that her movements would be far more free and rapid in airless space." (Kant)

264

264

Our Selves and Our Faculties

- It is implausible to insist on a distinction between *what I do* and *the actions that result from the working of my mental and bodily faculties*.
  - Compare: "the crane itself didn't lift that weight: it was the crane's hook that lifted it, supported by the crane's tower, powered by the crane's engine, so it wasn't an action of the crane itself". This would be ridiculous.
- So the incompatibilist claim has to be that if the processing of my faculties is ***determined***, then it isn't a ***free*** action of mine (even though it is a genuine action). Why should we accept this?

265

265

Ultimate Responsibility

- There is, admittedly, a temptation to say that if *P* (the prior situation, e.g. the world 1,000 years ago) and *L* (the laws of nature) causally determine *A* (some action), then person *S* can be *genuinely* responsible for *A* only if *S* is causally responsible for *P* and/or *L*.
- In a deterministic world, this would prevent anyone – or any thing – from being genuinely responsible for anything at all. Responsibility could only lie with an ultimate cause of the entire causal nexus (e.g. a creator God).

266

266

Causa Sui

- Galen Strawson argues that to be *truly* and *ultimately* responsible for an action, one must be responsible for all of the factors that give rise to that action.
- Hence one must literally be *causa sui* – the cause of oneself.
- But – obviously – *nothing* can cause itself.
- Hence, genuine moral responsibility is completely impossible: it is an illusion.

267

267

The Nihilistic Risk

- All of these arguments risk undermining the theoretical basis of morality. Perhaps …
  - … incompatibilism is correct, but the universe is in fact deterministic;
  - … incompatibilism is correct, but the only non-deterministic aspects of the universe are in fact quantum events that have no relevance whatever to moral responsibility;
  - … the entire notion of moral responsibility is hopelessly incoherent, whether the universe is determined or not.

268

268

Morality as Founded on Sentiment

- Hume defends morality against such metaphysical worries by appeal to his *sentimentalism*:

  > A man, who is robbed of a considerable sum; does he find his vexation for the loss any wise diminished by these sublime reflections? Why then should his moral resentment against the crime be supposed incompatible with them? (*E* 8.35)

- If morality is founded on *emotions* that naturally arise within us in certain circumstances, then we shouldn't expect these emotions to disappear just because we reflect on the inexorable chain of causation that led to the criminal's action.

269

269

Retributive Emotions

- Where individuals can benefit from cooperation, and have cognitive capacities for appropriate discrimination, computer modelling (e.g. of the iterated IPD) demonstrates that the evolution of something like "morality" makes good sense.
- "Moral" (e.g. "nice") strategies are especially favoured within contexts where defection is seen and "punished" by other agents.
  - Thus it is entirely to be expected that we should feel *retributive* emotions (anger, resentment, gratitude) and *blame* people for "wrong" actions, ***whatever the metaphysics might be***!

270

270

Appendix: Hume on Liberty and Necessity

- Hume argues that "the doctrine of necessity" (in effect, determinism) applies to human actions, by appealing to his analysis of our concept, or "idea", of causal necessity.
  - That idea, he says, arises from our tendency to make inductive inferences in response to observed regularities (see e.g. *E* 8.5).
  - And since we observe such regularities, and make corresponding inferences, in both the "moral" and "natural" worlds, he thinks exactly the same kind of necessity must apply in both.

271

271

Hume on Causal Necessity

- Hume's famous analysis of causal power (or "necessary connexion") is in *Enquiry* Section 7.
  - He starts from the Copy Principle (referring back to *E* 2.5, 2.9) that "*all our ideas are nothing but copies of our impressions*" (*E* 7.4).
  - The only *impression* of necessity he can find is our tendency to make inductive inferences after seeing *A* repeatedly followed by *B* (*E* 7.27-8).
  - He goes on to provide two *definitions of cause* (*E* 7.29), which he uses in the next section to argue that human actions are causally *necessary* in exactly the same way as physical events.

272

272

Applying the "Definitions of Cause"

- "Our idea … of necessity and causation arises entirely from the uniformity, observable in the operations of nature … Beyond the constant *conjunction* of similar objects, and the consequent *inference* from one to the other, we have no notion of any necessity, or connexion." (*E* 8.5)
- "If these circumstances form, in reality, the whole of that necessity, which we conceive in matter, and if these circumstances be also universally acknowledged to take place in the operations of the mind, the dispute is at an end." (*E* 8.22)

273

273

Satisfying the Two Definitions

- To prove his case, Hume must show that human actions satisfy the two "definitions of cause". So most of Section 8 Part 1 is devoted to arguing:
  - that human actions manifest such uniformity;
  - that they are generally recognised as doing so;
  - that people standardly draw inductive inferences accordingly, just as they do about physical things.
- Hence "all mankind … have … acknowledged the doctrine of necessity, in their whole practice and reasoning", even while "profess[ing] the contrary opinion" (*E* 8.21).

274

274

Why Is Necessity Denied?

- Hume thinks people deny that the same necessity applies to humanity and nature because they have
  > "a strong propensity to believe, that they penetrate farther into the powers of nature, and perceive something like a necessary connexion between the cause and the effect" (*E* 8.21).
- Hume's sees such penetration as just a seductive illusion (recall his Adam thought-experiment). And given that the necessity of *physical* operations amounts to no more than constant conjunction and consequent inference, he can argue that *human* actions too are subject to the same necessity.

275

275

Hume's Mistake

- In conflating the causation of human actions with the causation of billiard balls etc., *Hume is making a tempting mistake*. Even if everything that happens is determined, we can still distinguish between *purposive explanation* and *physical explanation* (and hence, *contra* Hume, "betwixt *moral* and *physical* necessity", *T* 1.3.14.33, cf. *E* 8.19)
  - If planning, purposive agents exist, then their plans, thoughts, and purposes will play a crucial explanatory role, *even if these are mediated by causal physical mechanisms*.

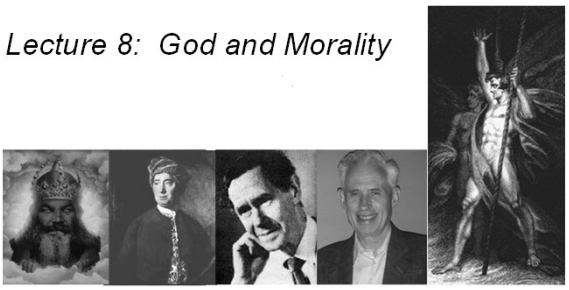
276

276

General Philosophy

Prof. Peter Millican, Hertford College

Lecture 8: God and Morality



277

A Central Topic, Still Today

- Results from the *PhilPapers Survey 2009*:

Philosophical Doctrine	% among Theists	% among Atheists
MIND: Physicalism	22.3%	68.0%
FREE WILL: Compatibilism	35.3%	67.4%
PERSONAL IDENTITY: Psychological	27.2%	41.6%
ETHICS: Consequentialist	10.6%	32.1%
FREE WILL: Libertarianism	50.0%	7.7%
PERSONAL IDENTITY: Further fact	36.3%	10.2%
ETHICS: Moral realism	79.2%	59.2%
ETHICS: Deontological	40.7%	28.1%

278

"God" Defined

- Different religions have a wide variety of "gods", but in the Christian-derived tradition of philosophy of religion we focus on one particular notion, capitalised as "God":
  - *omnipotent* (all-powerful)
  - *omniscient* (all-knowing)
  - *perfectly good*
  - *creator of the universe*
- That is, an *omniperfect* creator.

279

279

Why Postulate a Perfect God?

- Flattery?
  - Hume's *Natural History of Religion* gives a psychological explanation: once we have a favourite God, we want to flatter Him.
- Simplicity/Economy of Explanation
  - Richard Swinburne argues that an *infinite*, *perfect* God is *simpler* than any rival hypothesis (e.g. a god whose power and knowledge have certain particular limits), and that simpler hypotheses are more *a priori* probable.

280

280

Inference to the Best Explanation

- According to Swinburne, the existence of God is defensible as a quasi-scientific hypothesis to explain the world's character:
  - The world as we experience it is just the sort we should expect a perfect God to create.
  - "Ockham's Razor", and scientific practice, suggest we should prefer the *simplest* and *most comprehensive* explanatory hypothesis.
  - Hence one God without limits is preferable to (e.g.) the hypothesis of many limited demigods.

281

281

- Unfortunately, the hypothesis of a perfect God seems to fall down with respect to some other criteria of a "best explanation":
  - *imprecise* in the predictions it makes;
  - *non-specific*: does not explain why *this* happens rather than *that*;
  - *no mechanism*: God's ways of acting seem to be magical, rather than explicable, and …
  - … *radically out of line with our background experience* (e.g. we have no experience of agents acting immediately and without any causal intermediary)

282

282

The Fine Tuning Argument

- The accusations of imprecision and non-specificity can perhaps be countered by appeal to a recent variant of the "Design Argument", which builds on discoveries of modern cosmology indicating that the physical constants of the universe are "fine tuned": if they had been slightly different, there would have been no complex universe of stars and galaxies etc., and thus no evolution of living, moral beings.
  - For example, if gravity had been stronger (relative to the initial "Big Bang"), the universe would have collapsed too soon; if weaker, there would have been no coalescing of matter into galaxies and stars.

283

283

- Contemporary cosmology is too uncertain to give a clear verdict on the Fine Tuning Argument:
  - Relativity and Quantum Mechanics are in conflict.
  - "Dark matter" was corroborated only in 1980, and "dark energy" postulated in 1998; these are now reckoned to compose 95.44% of the universe!
  - It is hard to justify (or even make sense of) probability judgements about cosmic scenarios, when we only have our own limited experience of this one universe.
  - Some theories postulate zillions of universes, encompassing a massive variety of laws of nature. *If such a theory were true*, then the "fine tuning" of our universe could be explained away as a selection effect: it should not be surprising that we, as living beings, find ourselves in a life-favouring universe.

284

284

But suppose that in 1,000 years …

- A consistent, comprehensive, and extremely well-tested physical theory has been developed;
- This theory contains a number of fundamental constants that have resisted all attempts at deeper explanation: they seem to be "brute facts";
- Cosmological theories can be systematically simulated by computer modelling, so it is possible to investigate reliably the implications of theories involving *different* values of the fundamental constants;
- It has thus been convincingly established that even tiny deviations from the observed actual values of the fundamental constants would imply a lifeless universe.

285

285

… What options would we then have?

1. Conclude that the universe was somehow set up to "choose" these fine-tuned values, which suggests *advance design* (because the fine tuning is in respect of what was needed to *bring about* a complex universe, over billions of years).
2. Conclude that there is a selection effect amongst multiple universes, or perhaps some evolutionary mechanism favouring complex universes.

Unless we have independent evidence for 2, isn't postulating one Designer less metaphysically extravagant than zillions of other universes?

286

286

Fine Tuned For What, Exactly?

- The evidence for Fine Tuning does not specifically concern the conditions for the evolution of *intelligent, moral, living beings*, but rather, for a complex universe of galaxies, stars, planets etc.
- So why pick on *intelligent life* as the target of design, when so little of the universe is suitable for life, and for only a tiny fraction of its existence in time? It seems better "designed" to produce galaxies, or black holes!
- We need some reason for claiming that life is of special significance (and not just to us). Maybe *morality* or *consciousness* could provide the answer, if these prove resistant to scientific "reductionist" accounts?

287

287

Fine Tuned By What, Exactly?

- Imagine you discover a bridge, constructed in such a finely-tuned way that the slightest change in structure would fail to support the load. Does this suggest:
  - That the materials of the bridge have been perfectly designed to support massive loads?
  - That the bridge's designer has had to exercise utmost ingenuity to create a workable bridge, *despite* the limits of the materials available?
- An omniperfect Designer could create a universe bursting with morally sensitive life, just by divine *fiat*.
  - So fine-tuning does not suggest an *omnipotent* and *omniscient* god, so much as one who is doing the best He can within a framework of constraints.

288

288

Design without Omniperfection?

- If the Fine Tuning Argument works, giving up the claim to the *infinite* "God of the philosophers" may well seem a modest price to pay:
  - We still have a Designer of cosmic proportions, able to fix the fundamental constants of the universe.
- More worrying is a lack of evidence for the Designer's *moral goodness*: even an *evil* god could welcome the evolution of conscious living beings, capable of immorality and suffering.
  - Hence again, it would be helpful if moral values were found to be specially built into the universe.

289

289

Morality, Objectivity, and God

- We are naturally inclined to view moral requirements as "*objective*" – independent of our own (or others') personal desires etc.
- It may also seem initially plausible to think that a *requirement* must be *required* by someone: any *law* implies some *lawgiver*.
- Put together, these thoughts might suggest that morality implies a lawgiver whose requirements are built into the structure of the universe: a morally authoritative creator.

290

290

Divine Command Theory

- The *divine command theory* of morality equates moral goodness with obedience to God's commands.
  - Hence if there is no God, "good" and "evil" have no application; in Dostoevsky's words:

    "Without God and the future life … everything is permitted" (*The Brothers Karamazov*, IV xi 4)
- However the theory risks making God's own goodness completely empty: it just amounts to "God commands whatever He commands".

291

291

The *Euthyphro* Dilemma

- In Plato's dialogue *Euthyphro* (10a), Socrates presents the dilemma:

  "is what is pious loved by the gods because it is pious, or is it pious because it is loved by the gods?"
- Applied within monotheism:
  - Does God command what He does because it is good? In which case, "goodness" must be logically prior to (and independent of) His will.
  - Do God's commands *define* what is good? In which case, torturing babies should be deemed good if God commanded it? "But of course He wouldn't …"

292

292

- Islamic State's online magazine, *Dabiq*, gave a scriptural justification for annihilating Yazidi men and forcing the women into sexual slavery (see *The Economist*, 18 October 2014).
- *Deuteronomy* 20: 14 allows warriors to "put … males to the sword", to "take as your booty the women, the children", and to "enjoy the spoil …". Verses 16-17 prescribe genocide six times over!
- Even the ten commandments provide a poor basis for general morality, because they are so strongly rooted in the religion of Judaism.
  - The first four commandments focus on duties to God (namely: no other gods, no idols, no wrongful use of the divine name, observe the sabbath).

293

293

Other Routes to Moral "Realism"

- Liberation from dependence on ancient tribal scriptures has not generally undermined respect for morality. Instead, moral views have been refined under pressure from considerations such as:
  - Rationality and consistency (e.g. fairness);
  - Logic of moral language (e.g. "universalisability");
  - Maximisation of wellbeing (e.g. utilitarianism);
  - Preservation and harmony of society.
- The *PhilPapers* survey of philosophers found that 59.2% of atheists were "moral realists".

294

294

An Evolutionary Perspective

- Human success is largely due to our power of cooperation, and our huge brains seem to have evolved under this selective pressure.
  - Robin Dunbar found a strong correlation in primate species, between the volume of the neocortex and the size of typical social groups.
- Human interactions are complex and mediated by language, so theism is not required to explain how our need for cooperation gets enshrined in norms, sentiments (e.g. of approval, blame, guilt, resentment), and ultimately explicit rules.

295

295

The Problem of Evil

- Hume provides a classic statement of the "problem", in *Dialogues* 10.25:

  "EPICURUS's old questions are yet unanswered. Is he willing to prevent evil, but not able? then is he impotent. Is he able, but not willing? then is he malevolent. Is he both able and willing? whence then is evil?
- Mackie notes the implicit premise: good is opposed to evil in such a way that *a perfectly good being will eliminate evil as far as it can*.

296

296

Inconsistency, or Implausibility?

- The *Logical (or Consistency) Problem of Evil:*
  - How can the existence of God be logically consistent with the existence of evil?
- The *Evidential (or Plausibility) Problem of Evil*
  - How can the existence of God reasonably be rendered plausible given the existence of evil?
- The *Inferential Problem of Evil*
  - How can the existence of God reasonably be inferred by any sort of "Design Argument", given the existence of evil?

297

297

The Quantity of Evil

- Both the Logical and the Evidential/ Inferential problems come in two varieties, the latter of which is sometimes called "the Quantitative Problem of Evil":
  - The problem of reconciling God's existence (either logically or evidentially) with the existence of any evil at all.
  - The problem of reconciling God's existence (either logically or evidentially) with the extent of evil that we actually see in the world.

298

298

Natural and Moral Evil

- Another important distinction:
  - "The Problem of Pain" or of *natural evil:*

    arising from the existence of disease, flood, drought, famine, earthquakes, etc., including the suffering of animals
  - "The Problem of Sin" or of *moral evil:*

    arising from the existence of *evil behaviour* by *free and morally responsible agents*, most obviously by human beings (but also potentially by "fallen angels" etc.)

299

299

Evil and the Design Argument

- The most difficult varieties of the Problem of Evil for the theist to deal with focus on:

  the *evidential* problem of rendering God's existence *reasonably inferable* – or even, perhaps, barely *plausible* – given the extent of (moral and) *natural evil* that we see in the world.
- In this form, the Problem of Evil is obviously closely related to the Design Argument:
  - Can the existence of an omniperfect God reasonably be inferred from the nature of the world that we experience?

300

300

Two Very Weak Theodicies

- A "theodicy" is an attempt to reconcile the appearance of evil with God's existence, e.g.:
  - "Evil is an illusion"

    Then how can it be *our* duty to eliminate evil, if it is merely an illusion?

    And why does God allow such unpleasant (and hence apparently undesirable) illusions?
  - "Evil enables us to appreciate goodness"

    But this at best explains a small amount of evil.

    And anyway, why couldn't God make us able to appreciate goodness without needing evil?

301

301

Two Extreme Solutions

- God is not omniperfect (e.g. all-powerful)
  - This is a contradiction in terms, *as we are understanding the question*: it is denying the existence of God (understood this way).
- God's goodness is a mystery to us
  - Cuts off religion from any practical morality.
  - For all we know, from God's point of view it is *good* rather than *evil* to torture infants etc.?
  - Maybe any afterlife will be a torture too!
  - No reason to expect that God will be *truthful*.

302

302

Hume on the Design Argument

- Hume discusses the Design Argument in two main places, *Enquiry* 11 and the posthumous *Dialogues Concerning Natural Religion*.
- In both, he disguises his own intentions (for prudential reasons) by using a dialogue form.
- *Enquiry* 11 focuses mainly on one point:
  - We cannot argue from the world to the supposed nature of God, and then argue back from the existence of such a God to draw <u>*new*</u> conclusions about the world beyond what is apparent.

303

303

The "Porch View"

- The porch may look pretty awful, but we'll understand how wonderfully designed it really is once we've seen the entire building!

  "This world is but a point in comparison of the universe: this life but a moment in comparison of eternity. The present evil phenomena, therefore, are rectified in other regions, and in some future period of existence. And the eyes of men, being then opened to larger views of things, see the whole connection of general laws, and trace, with adoration, the benevolence and rectitude of the Deity, through all the mazes and intricacies of his providence." (*D* 10.29)

304

304

Conjectures and Fictions

"No! replied Cleanthes, No! These arbitrary suppositions can never be admitted, contrary to matter of fact, visible and uncontroverted. Whence can any cause be known but from its known effects? Whence can any hypothesis be proved but from the apparent phenomena? To establish one hypothesis upon another is building entirely in the air; and the utmost we ever attain, by these conjectures and fictions, is to ascertain the bare possibility of our opinion; but never can we, upon such terms, establish its reality." (*D* 10.30)

- Note here the force of Hume's emphasis on *plausibility* and *evidence* rather than mere *logical consistency*.

305

305

The "Vale of Soul-Making"

- John Hick proposes that coping with the evils of the world provides a challenge that leads to moral and personal growth:

  "The world is not intended to be a paradise but a place of soul-making"
- J. L. Mackie notes the devastating objection:
  - God doesn't need to "fit in" with *causal* laws ...
  - Since He's omnipotent, God could create beings who are morally mature (etc.) *without* needing to suffer to achieve this.

306

306

Refining "Omnipotence"

- Can God create:
  - a force too powerful for Him to control?
  - a creature able to act without His knowledge?
  - gratuitous (utterly pointless) evils in the world?
- This sort of problem can be avoided by recognising that God's "omnipotence" need only be understood as requiring that:
  - *God is able to do anything which it is logically possible for a perfectly good and omniscient being to do.*

307

307

Absorbed Evils

- Hence some evils might be "absorbed" (Mackie's term), by being *logically necessary* for the achievement of "higher" goods:
  - "Without suffering, there would be no room for sympathy, which is a great good";
  - "Without danger, there would be no courage";
  - "Without disease, there would be no scope for scientific endeavour to discover cures";
  - "Without regular laws, we could not learn inductively about the world" (Swinburne).

308

308

The Best of All Possible Worlds?

- If all evils are absorbed, then perhaps – as Leibniz famously claimed – this is the best of all possible worlds?
  - But this seems a ridiculous claim, as illustrated by Voltaire's parody in *Candide*.
  - It subverts morality, undermining our natural judgements of good and evil, and implying that whatever we do will be for the best (so moral self-control apparently becomes pointless).
  - If *this* is the best things can be, then why expect that an afterlife will be any better?

309

309

The Free Will Defence

- An omniperfect God would not initiate a causal process determined to produce unabsorbed evil.
  - He would have better alternatives, and would know that.
- But if God exists and is not causally responsible for "unabsorbed" evil, then such evil must be the result of some *contra-causal* process – a process whose outcome is *not* causally determined.
- But then why should God create such a process, if it risks generating such awful results?
- It must be *intrinsically good* as well as contra-causal: Free Will is the only plausible candidate.

310

310

Problems with the Free Will Defence

- It can work only if Free Will is *contra-causal*; hence it requires *incompatibilism*.
- It can explain only *moral* evil, not *natural* evil (e.g. the suffering of animals before humans appeared on the scene), except by appeal to free *non-human* spirits (e.g. "fallen angels").
  - Both of these seem to be potential examples of "building one hypothesis upon another".
- If freedom carries logically a risk of sin, then that applies to angels (and God?) also.

311

311

A More General Problem

- Antigod
  - Any hypothesis that explains the existence of evil within a theistic world tends to be equally good at explaining the existence of goodness within an anti-theistic world.
- Moral indifference
  - This suggests that neither extreme hypothesis is justified: the world is governed neither by perfect goodness nor perfect evil.

312

312

General Philosophy

Prof. Peter Millican, Hertford College

Appendix: The Ontological Argument

313

Descartes' Ontological Argument

- Very crudely, the *Meditation* 5 argument goes like this:

  God is (by definition) a perfect being: a being possessing all perfections.

  Existence is a perfection.

  Therefore

  God exists

- Most philosophers have thought this looks far too good to be true, but the fault is not so easy to pin down …

314

314

The Parody Objection

- Gassendi, in the *Fifth Set of Objections*, suggested the following parody as an objection to Descartes' argument:

  Perfect Pegasus is (by definition) a perfect flying horse.

  Existence is a perfection.

  Therefore

  Perfect Pegasus exists

- This looks bad, but doesn't tell us exactly *what* is wrong with such arguments …

315

315

Kant's Diagnosis, and Frege

- Kant famously objected "existence is not a predicate": we cannot categorise *types of thing* in terms of whether they exist or not.
- This goes nicely with the Fregean analysis of "there exists" as a *quantifier*:
  - "God exists" is saying "There is a God", or "the concept *'God'* is instantiated":

    $\exists x\, Gx$ or $\exists x\, (Px \,\&\, Kx \,\&\, Mx)$

    [where P, K and M mean infinite power, knowledge, and moral goodness]

316

316

Side-stepping Kant

- Kant's objection is tricky for Descartes, but does not go to the heart of the problem:
  - Even on Kant's principles, there does not seem to be any objection to talking of *concepts* as "instantiated" or "non-instantiated".
  - Hence there seems no obvious objection to comparing concepts against each other in terms of the qualities that they ascribe, and whether or not they are instantiated.
  - But then the Ontological Argument still lives!

317

317

Anselm's Argument (1077-8)

- God is understood as *that than which nothing greater can be conceived*.
- The Fool (of Psalm 14) understands this – and thus God exists *in his understanding* – but the Fool denies that God exists also in reality.
- If God did not exist in reality, then it would be possible to conceive of something greater (i.e. something which does exist also in reality).
- But this would be a contradiction, since it is not possible to conceive of something greater than *that than which nothing greater can be conceived.*

318

318

A Kant-Resistant Argument

- Call concept *A* "greater" than *B* if:
  - *A* is instantiated and *B* is not instantiated
  - *or*
  - *A* and *B* are both instantiated *and A*'s defined power/knowledge/goodness are greater than *B*'s
  - *or*
  - *A* and *B* are both uninstantiated *and A*'s defined power/knowledge/goodness are greater than *B*'s
- Then the concept than which no greater can be conceived must be instantiated!

319

319

- This adaptation (like Anselm's own argument) conceals an ambiguity between:
  - That concept which *is* so great that no conceivable concept *is* greater;
    - *THIS needn't involve omnipotence etc.*
  - That concept which *is* so great that no concept could conceivably be greater;
    - *If there's no God, NO concept is <u>this</u> great.*
  - That concept which *can be conceived to be* so great than no concept could conceivably be greater (than it would then be).
    - *"God" can be this <u>without</u> being instantiated.*

320

320

A General Objection

- The advocate of the Ontological Argument aims to refer to some concept *G* whose qualities (e.g. perfection) are such as to imply that it is *both* godlike *and* actually instantiated.
- But if the required qualities are indeed such as to imply *both* godliness *and* real instantiation, then the atheist can simply deny that there is any such concept to be referred to.
  - Even if there is some *potentially* perfect concept *G'*, he can deny that it is *actually* perfect (precisely because he believes that it is not instantiated).

321

321

Hume's Fork (Again)

- Recall that Hume distinguishes between:
  - Relations of ideas
    - True in virtue of conceptual relations
    - Knowable a priori, without appeal to experience
    - Necessarily true – cannot be conceived to be false
    - Most "interesting" cases are in mathematics
  - Matters of fact
    - Depend on facts about the world
    - Cannot be known a priori, but only by experience
    - Contingent – can be conceived to be true or false

322

322

Wielding Hume's Fork

- Hume's Fork gives a useful tool for attacking Descartes' argument. When the Cartesian says:

  "God is a perfect being",

  we ask: "is this claimed to be a relation of ideas, or a matter of fact?"
  - If it is a relation of ideas, then we should be suspicious of the claim that it can imply any "matter of fact and existence".
  - If it is a matter of fact, then we can ask for the empirical evidence on which it is based.

323

323

Refuting Descartes' Argument

- To evade Kant, Descartes can claim instantiation as a "perfection" *of concepts* and present his premise as:

  "The concept 'God' possesses all perfections."
- Is this supposed to be a conceptual claim?
  - Anything instantiating the concept 'God' is a perfect being. *[maybe true, but doesn't prove there is one]*
  - The concept "God" can be thought of as perfect (by thinking of it as instantiated). *[maybe true, but doesn't imply that it <u>is</u> perfect]*
- Or a factual claim?
  - The concept "God" is in fact perfect, and so instantiated. *[takes for granted there is a God, offering no evidence]*

324

324