David Hume, 1711-1776



1. Historical Background, Major Themes in Hume, and His "Chief Argument"

Peter Millican Hertford College, Oxford (a) Some Historical Background

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Born in 1711, in Edinburgh

- 1610, Galileo, The Starry Messenger - Refutes the Aristotelian theory of the universe.
- 1620, Bacon, Novum Organum - Advocates the empirical method of science
- 1641, Descartes, Meditations - Matter understood as pure extension
- 1660, Formation of the Royal Society - Promoting the development of empirical science
- 1661, Boyle, The Sceptical Chymist
- The corpuscularian theory of matter
- 1687, Newton, Principia
 - Gravitational force subject to inverse-square law

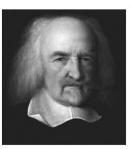




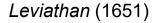
Mechanism and Scepticism

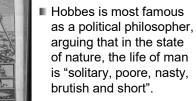
- The "Mechanical Philosophy"
 - Championed especially by Descartes (matter is just extension) and Boyle (matter is extended, impenetrable, and corpuscular).
 - The physical world is composed of (particles of) inert matter acting through mutual impact and mathematically calculable forces.
 - This seems intelligible (because mechanical interaction appears to make sense to us).
 - But it potentially opens a sceptical gap between the world as it is and how it appears.

The Monster of Malmesbury (and Magdalen Hall = Hertford College!)



- Thomas Hobbes wholeheartedly accepts the mechanical philosophy:
 - Everything that exists in the universe is material (hence no immaterial substance).
 - Everything is causally determined by the laws of
 - A perfect science would be demonstrative.





■ The only solution is absolute sovereignty, over religion and morals as well as policy.

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Materialism and Atheism

- Hobbes did not deny the existence of God, but many took his materialism to be atheistic and dangerous (e.g. denying immortality):
 - In 1666 Parliament cited his "atheism" as probable cause of the plague and fire of London!
 - His "Pernicious" books were publicly burned in Oxford in 1683, because of their "Damnable Doctrines ... false, seditious, and impious, and most of them ... also Heretical and Blasphemous ... and destructive of all Government".

Opposing Materialism

- The main argument against Hobbist materialism was to insist on the limited powers of "brute matter", which:
 - is necessarily passive or inert;
 - 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), and ...

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John Locke (1632-1704)



- Strongly influenced by his friend Boyle.
- Essay concerning Human Understanding of 1690 sets out to account for human thought and human knowledge, within this new mechanical world-order.
- Emphasis on empiricism and probability, rather than a priori knowledge and certainty.

Two Kinds of Empiricism

■ Distinguish concept-empiricism:

All our ideas derive from experience

(i.e. contra Descartes, there are no innate ideas)

from knowledge-empiricism:

All knowledge of the world derives from experience

(i.e. in Kant's terms, there is no synthetic a priori knowledge)

■ Locke is noted for his concept-empiricism, but he is *not* a pure knowledge-empiricist.

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(b) Major Humean Themes: Empiricism, Scepticism, Naturalism

A Treatise of Human Nature

- Published 1739-40
- *Abstract* (1740)
 - Explains "Chief Argument" of the *Treatise*
 - Describes its philosophy as "very sceptical"
 - Starts from empiricism and celebrates association of ideas

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Hume's Copy Principle

■ Hume's concept-empiricism is expressed in his "first principle" (T 1.1.1.12) which is now commonly known as his Copy Principle:

"that all our simple ideas [i.e. thoughts] in their first appearance are deriv'd from simple impressions [i.e. sensations or feelings], which are correspondent to them, and which they exactly represent." (T 1.1.1.7)

■ Hume sees this as a more precise formulation of Locke's denial of innate ideas (as made explicit at Abstract 6 and E 2.9 n. 1).

Empiricist Sceptic, or Naturalist?

- A negative sceptic (?)
 - Deliberately aiming to reveal weaknesses and contradictions in human reason, or
 - Driven to paradox and contradiction by following his own principles (e.g. Copy Principle).
- A positive naturalist (?)
 - Attempting "to introduce the experimental method of reasoning into moral subjects".
 - Explains ideas through Copy Principle and association of ideas: cognitive science.

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Three Humean "Naturalisms"

- Natural science of human behaviour, with down-to-earth causal mechanisms
 - explanatory naturalism
- Man is part of the natural world, alongside the animals
 - biological naturalism
- Against "invisible intelligent powers", and hostile to established religion
 - anti-supernaturalism

(c) Early Influences on Hume

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Hume's Education

- Edinburgh University 1721-5 (age 10-14)
 - Traditional, in Latin, infused with religion;
- Home at Chirnside, 8 miles west of Berwick
 - Read classics (Cicero, Seneca, Plutarch etc.);
 - Shaftesbury Characteristics (bought 1726);
 - Attempted to follow Stoic moralists;
 - Experienced personal breakdown, as described in his famous draft letter to a physician of early 1734:

"I found that the moral Philosophy transmitted to us by Antiquity, labor'd under the same Inconvenience that has been found in their natural Philosophy, of being entirely Hypothetical, & depending more upon Invention than Experience. Every one consulted his Fancy in erecting Schemes of Virtue & of Happiness, without regarding human Nature, upon which every moral Conclusion must depend. This therefore I resolved to make my principal Study, ... I believe ... that little more is requir'd to make a man succeed in this Study than to throw off all Prejudices ... At least this is all I have to depend on for the Truth of my Reasonings, which I have multiply'd to such a degree, that within these three Years, I find I have scribbled many a Quire of Paper, in which there is nothing contain'd but my own Inventions." (HL i 16)

Loss of Religious Faith

- 1751 letter to Gilbert Elliot of Minto:
 - Hume recently "burn'd an old Manuscript Book, wrote before I was twenty; which contain'd, Page after Page, the gradual Progress of my Thoughts on that Head".
 Began "with an anxious Search after Arguments, to confirm the common Opinion", "a perpetual Struggle of a restless Imagination against Inclination" (HL i 154).
- Deathbed interview with James Boswell:
 - Hume said that he was "religious when he was young", but that "the Morality of every Religion was bad" and "he never had entertained any belief in Religion since he began to read Locke and Clarke".

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(d) Seeking the Missing Link

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Locke's Cosmological Argument

- "There is no truth more evident, than that something must be from eternity. ... This being of all absurdities the greatest, to imagine that pure nothing, the perfect negation and absence of all beings, should ever produce any real existence." (IV x 8)
- "If then there must be something eternal, let us see what sort of being it must be. ... it is very obvious ... that it must necessarily be a cogitative being. For it is as impossible to conceive, that ever bare incogitative matter should produce a thinking intelligent being, as that nothing should of itself produce matter." (IV x 10)

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A Missing Piece in the Puzzle

- So far we have seen why Hume might be:
 - Sceptical about established orthodoxies, both moral and religious;
 - Keen to study human nature, through solid empirical methods rather than "invention" (i.e. explanatory naturalism);
 - Seeking a theory that is quite independent of religion (i.e. anti-supernaturalism).
- But how does all this fit with his enthusiasm for empiricism?

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What Connects Locke and Clarke?

- Treatise 1.3.3 which disputes the basis of the Causal Maxim (whatever begins to exist, must have a cause of existence) identifies both Locke and Clarke by name in footnotes; this is the Treatise's only mention of Clarke.
- Both Locke and Clarke advocated the Cosmological Argument for the existence of God, based on the Causal Maxim.
- Both also appealed crucially to the principle that matter cannot give rise to thought.

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Clarke's Cosmological Argument

- Hume gave a paraphrase of Clarke's argument in Part 9 of his Dialogues concerning Natural Religion:
 - "Whatever exists must have a cause or reason of its existence; ... What was it, then, which determined Something to exist rather than Nothing?"
 - "Nothing ... can never produce any thing."
 - "an infinite succession of causes, without any ultimate cause at all: ... is absurd."
 - "We must, therefore, have recourse to a necessarily existent Being, who carries the REASON of his existence in himself ... There is, consequently, such a Being; that is, there is a Deity." (D 9.3)

Samuel Clarke



Most prominent advocate of Newtonian philosophy.

- Debated with Anthony Collins, who argued that human behaviour is subject to necessity, just as much as the actions of matter.
- In response, Clarke firmly distinguished physical from moral necessity, real necessity from mere predictability.

Henry Home, Lord Kames (1696-1782)



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- Hume's relative, and mentor while at Edinburgh University; family home at Kames, 9 miles southwest of Chirnside.
- Corresponded with Samuel Clarke (about free will and necessity) and Andrew Baxter, a Scottish Clarkean (1723).
- Told Boswell that Locke's "chapter on Power crucified him" – it deals with the idea of power, free will, necessity etc.

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William Dudgeon

- Tenant of Lennel Hill farm near Coldstream (8 miles south of Chirnside).
- Published *The State of the Moral World Considered* in 1732, defending optimism (i.e. everything that happens is for the best) and necessitarianism (i.e. causal determinism).

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Andrew Baxter

- Tutor for the Hays of Drumelzier at Duns Castle (6 miles west of Chirnside).
- Published an attack on Dudgeon, also in 1732.
- A prominent supporter of Samuel Clarke, and likely target of some of Hume's later criticisms (in his Letter from a Gentleman of 1745 and his Enquiry of 1748).

REFLECTIONS
On a late
PAMPHLET;
CALLED,
The State of the Moral
World Confidered.



E D I N B U R G H, inted by GAVIN HAMILTON and COMPANY, and fold at his Shop opposite to the Parliamens-Cloft, Northade of the Street, MoccaxxII.

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Baxter's Enquiry

- In 1733, published An Enquiry into the Nature of the Human Soul.
- Second edition in 1737, third edition in 1745, *Appendix* in 1750.
- Best known now as the first substantial English critique of George Berkeley's philosophy.

E N Q U I R Y

Nature of the Human SOUL;

Immateriality of the SOUL

Is evinced from the
PRINCIPLES

OF
REASON and PHILOSOPHY.

Tyuk di vi Bakayan; nakayan vin piru, ng raing innikan. Epikt. Zerik yak vin akifonan, ng in sikin mamik ikulin. Marc. Antonin.

LONDON:

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And fill by G. STRAINS, we recognid the Roph-Linkey in Centril; J. Grav,
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Prosecution at Chirnside

- Dudgeon was charged by the Presbytery of Chirnside (where George Home, David Hume's uncle, was minister):
 - 1st, That he denies and destroys all distinction and difference between moral good and evil, or else makes God the author of evil, and refers all evil to the imperfection of creatures;
 - 2d, That he denies the punishment of another life, or that God punishes men for sin in this life,
 yea, that man is accountable.

Hume's Early Memoranda

- Composed in the late 1730s or early 1740s.
- Show Hume's intense interest in the Causal Maxim, necessity, free will and its implications for God's existence and the Problem of Evil.

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Free Will and the Problem of Evil

- "Liberty not a proper Solution of Moral III: Because it might have been bound down by Motives like those of Saints & Angels."
- "Did God give Liberty to please Men themselves. But Men are as well pleas'd to be determin'd to Good."
- "God cou'd have prevented all Abuses of Liberty without taking away Liberty. Therefore Liberty no Solution of Difficultys."

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The Causal Nexus

- The Cosmological Argument:
 - The Causal Maxim;
 - Matter cannot produce thought.
- Henry Home of Kames:
 - Correspondence with Clarke and Baxter;
 - Interest in Locke's chapter "Of Power".
- Free Will and Necessity:
 - Clarke and Baxter, Collins and Dudgeon etc.;
 - Problem of Evil.

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The Missing Jigsaw Piece

Hypothesis

that Hume was strongly motivated at an early stage by the prospect of applying Locke's concept empiricism to settle the debate over free will and necessity by clarifying and delimiting what could possibly be meant by causal "necessity".

 This would bring Hume's empiricism entirely into line with his explanatory naturalism, antisupernaturalism and irreligious scepticism.

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(e) Hume's Analysis of Causation and Its Applications

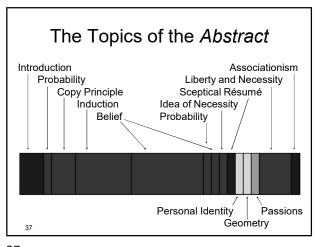
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Causal Impressions

- Treatise Book 1 Part 3 the most extensive part is structured around the analysis of causation, and the search for the impression from which the idea of (causal) necessary connexion is derived.
- Book 1 Part 1 gives most prominence to the Copy Principle: "the first principle I establish in the science of human nature" (*T* 1.1.1.12).
 - The 1740 Abstract presents the "Chief Argument" of the Treatise as centred around the topics of Treatise 1.3;
 - The 1748 Enquiry then follows a broadly similar structure, with the Copy Principle early on, and the idea of causal necessity its only significant application.

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Hume's Own Account

- Hume argues that the impression of necessary connexion (from which the corresponding idea is copied) arises in our minds when we perform inductive inferences (*T* 1.3.14.20).
- After having seen A followed by B repeatedly, and then seeing A again, we naturally find ourselves inferring B by a tendency that Hume calls "custom". The feeling (or awareness) of making the inference is the impression of necessary connexion.
 - We'll be coming back to this in a subsequent lecture; for now, this simple summary will do.

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Two "Definitions of Cause"

- Hume's main discussions of "the idea of necessary connexion" (*Treatise* 1.3.14 and *Enquiry* 7) both culminate with two "definitions of cause" (*T* 1.3.14.31, *E* 7.29).
- The first definition is based mainly on the constant conjunction of the "cause" A and the "effect" B (with A prior to B and, in the Treatise, also contiguous).
- The second definition is based on the mind's tendency to *infer B* from A.

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Applying the Definitions

- Hume sees his account of the relevant impression, and the corresponding definitions, as capturing all that we can legitimately mean by causal necessity.
- Immediate "corrollaries" are that "All causes are of the same kind" (T 1.3.14.32) and (contra Clarke) "there is but one kind of necessity ... and ... the common distinction betwixt moral and physical necessity is without any foundation" (T 1.3.14.33).
- Further, we can now see why the Causal Maxim of *T* 1.3.3 is not demonstratively provable (*T* 1.3.14.35).
- Hume also refers back to his definitions later, in sections T 1.4.5, 2.3.1, and 2.3.2 (cf. Enguiry 8) ...

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Causation and the Mind

- Hume is especially keen to establish causality and necessity in respect of the mind:
 - In principle, matter could be the cause of thought (T 1.4.5, "Of the Immateriality of the Soul");
 - The "doctrine of necessity" applies as much to the mental world as to the physical world (T 2.3.1-2 and E 8 "Of Liberty and Necessity");
- Both arguments crucially turn on the claim that there is nothing to causal necessity beyond the two definitions ...

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Constant Conjunction and Causation

"all objects, which are found to be constantly conjoin'd, are upon that account only to be regarded as causes and effects. ... the constant conjunction of objects constitutes the very essence of cause and effect ..."

(*T* 1.4.5.32, my emphasis)

"two particulars [are] essential to necessity, viz. the constant union and the inference of the mind ... wherever we discover these we must acknowledge a necessity." (T 2.3.1.4)

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Of the Immateriality of the Soul

- The standard anti-materialist argument insists that material changes cannot cause thought, because the two are so different.
 - "... and yet nothing in the world is more easy than to refute it. We need only to reflect on what has been prov'd at large ... that to consider the matter a priori, any thing may produce any thing, and that we shall never discover a reason, why any object may or may not be the cause of any other, however great, or however little the resemblance may be between them " (T 1.4.5.30)

Hume then goes further, to insist that material motion is indeed found to be the cause of thought:

- "we find ... by experience, that they are constantly united; which being all the circumstances, that enter into the idea of cause and effect ... we may certainly conclude, that motion may be, and actually is, the cause of thought and perception." (T 1.4.5.30, my emphasis)
- "as the constant conjunction of objects constitutes the very essence of cause and effect, matter and motion may often be regarded as the causes of thought, as far as we have any notion of that relation." (T 1.4.5.33, my emphasis)

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Of Liberty and Necessity

- Hume's argument that the same necessity is applicable to the moral (i.e. human) and physical realms depends on taking our understanding of necessary connexion to be exhausted by the two factors of constant conjunction and customary inference.
- These two factors can be shown to apply in the moral realm, and Hume insists that we cannot even ascribe any further necessity

(going beyond these two factors) to matter:

"the ... advocates for [libertarian] free-will must allow this union and inference with regard to human actions. They will only deny, that this makes the whole of necessity. But then they must shew, that we have an idea of something else in the actions of matter; which, according to the foregoing reasoning, is impossible." (A 34, cf. T 2.3.1.3-18, T 2.3.2.4, E 8.4-22, E 8.27)

This argument is explicitly based on Hume's definitions, which he views as revealing "the very essence" of causation and necessity.

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An Integrated Vision

- Hume's empiricist analysis of the idea of causal necessity claims to refute:
 - The Cosmological Argument;
 - Anti-materialist arguments:
 - The Free Will Theodicy (i.e. appealing to freewill to solve to the Problem of Evil);
 - Aprioristic causal metaphysics in general.
- At the same time it aims to support:
 - Empirical, causal science: the only way to establish anything about "matters of fact";
 - Extension of causal science into moral realm.

Further Reading

(These papers are also available online from www.davidhume.org/scholarship/papers/millican)

- Peter Millican (2009), "Hume, Causal Realism, and Causal Science", Mind 118, pp. 647-712.
 - §7 discusses T 1.4.5, §8 Liberty and Necessity, and §9 Hume's overall vision.
- Peter Millican (2016), "Hume's Chief Argument", in Paul Russell (ed.), The Oxford Handbook of David Hume (Oxford University Press), pp. 82-108.
 - Offers an overall account of Hume's main aims and arguments, covering all the material of this lecture.

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David Hume, 1711-1776

2. Fundamentals (Treatise 1.1)



Theory of Ideas, Association, Relations, Abstraction

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From Last Time ...

- Hume's early philosophical interests seem to have focused on various issues involving causation, many of these also having significant implications for religion:
 - Cosmological Argument, materialism and the mind, free-will, Problem of Evil.
- He applies Lockean concept empiricism to draw radical conclusions about these matters, starting from an adapted version of Locke's "theory of ideas".

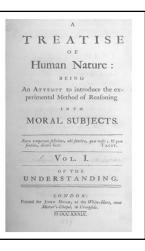
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Hume's Theory of Ideas



What is an "Idea"?

- John Locke's Essay concerning Human Understanding (1690) defines an idea as
 - "whatsoever is the Object of the Understanding when a Man thinks" (I i 8).
- This is supposed to include all types of "thinking", including perception and feeling as well as contemplation. So our *ideas* include thoughts and sensations, and also "internal" ideas that we get from *reflection*.

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Ideas and Impressions

- Hume thinks Locke's usage is too broad, so he adopts different terminology:
 - An impression is a sensation (e.g. from seeing a blue sky, smelling a flower, or physical pain) or a feeling (e.g. anger, desire, disapproval, envy, fear, love, or pride);
 - An idea is a thought (e.g. about the sky, or about a pain, or about the existence of God);
 - A perception is either an impression or an idea. (So Hume uses the word perception to cover everything that Locke calls an idea.)

Sensation and Reflection

"Impressions [are of] two kinds, those of sensation, and those of reflection." (T 1.1.2.1)

- Some impressions come directly from sensation (e.g. colours, smells, pains).
- Other impressions arise only from things that we think or reflect about (e.g. thinking about pain can make us feel fear; thinking about someone else's good luck can make us envious). These are impressions of reflection, which at T 1.1.6.1 Hume says are either passions (e.g. the desire for something) or emotions (e.g. happiness).

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"Reflection": A Contrast with Locke

When Locke discussed ideas of reflection, however, his focus was quite different:

"By REFLECTION ... I ... Mean, that notice which the Mind takes of its own Operations, ... by reason whereof, there come to be *Ideas* of these Operations in the Understanding."

- "... such are, Perception, Thinking, Doubting, Believing, Reasoning, Knowing, Willing, and all the different actings of our own Minds;" (II i 4)
- Locke seems to overlook feelings and passions; Hume is more interested in these, but seems to overlook mental operations!

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Force and Vivacity

■ Hume says that impressions have more force, vivacity, or liveliness than ideas:

"All the perceptions of the human mind resolve themselves into two distinct kinds, which I shall call IMPRESSIONS and IDEAS. The difference betwixt these consists in the force and liveliness, with which they strike upon the soul, and make their way into our thought or consciousness. Those ... which enter with most force and violence, we may name *impressions* ..." (*T* 1.1.1.1).

An Inconsistency?

■ But Hume hints that sometimes a thought can in fact be as lively as a sensation:

"in sleep, in a fever, in madness, or in any very violent emotions of soul, our ideas may approach to our impressions: [And] it sometimes happens, that our impressions are so faint and low, that we cannot distinguish them from our ideas." (*T* 1.1.1.1)

■ Compare, for example, dreaming of an attack of spiders, with watching paint dry!

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Why the Emphasis on "Force and Vivacity?"

- Hume is looking for a way that ideas can differ from impressions while still having the same content (to defend his concept empiricism).
 - T 1.3.7.6: "the same idea can only be vary'd by a variation of its degrees of force and vivacity"
- Hume will later unveil his theory of belief, which explains inductive inference as operating by a quasi-hydraulic transfer of force and vivacity from impressions to ideas.

Feeling and Thinking

■ Hume's distinction is most easily understood as that between feeling and thinking:

"I believe it will not be very necessary to employ many words in explaining this distinction. Every one of himself will readily perceive the difference betwixt feeling and thinking." (*T* 1.1.1.1)

So then impressions (and ideas) are not <u>defined</u> as being our more (and less) vivacious perceptions.

A Problem with the Theory of Ideas

- The central assumption of the Theory of Ideas is that thinking consists in having "ideas" (in Locke's sense) or "perceptions" (in Hume's sense) before the mind, and that different sorts of thinking are to be distinguished in terms of the different sorts of perceptions which they involve.
- This approach risks portraying the mind as very passive, its only activity being to perceive impressions and ideas ...

The Mental Stage

- The mind is thought of as like a stage, on which "perceptions" are the actors:
 - seeing a tree involves having an impression of a tree "in front of the mind";
 - thinking of a tree involves having an idea of a tree in front of the mind;
 - feeling a pain involves having an impression of a pain;
 - thinking about a pain involves having an idea of a pain.

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The "Liberty of the Imagination"

■ First, however, note that some ideas can be divided up imaginatively into components:

An apple has a particular shape, a colour, a taste, a smell ... Its shape is also complex ...

- We can <u>put ideas together</u> in new ways: gold + mountain = golden mountain; banapple = shape of banana + taste of apple.
- See *T* 1.1.3.4 for this "second principle". (At *T* 1.1.7.3 it seems to turn into the stronger, and questionable, Separability Principle.)

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The Copy Principle

Hume's expresses his concept-empiricism (commonly called his Copy Principle) thus:

"that all our simple ideas in their first appearance are deriv'd from simple impressions, which are correspondent to them, and which they exactly represent." (T 1.1.1.7)

■ Hume is explicit in acknowledging his debt to Locke in this (A 6, E 2.9 n. 1), and its Lockean orthodoxy may explain why Hume evinces a rather uncritical attitude to the Copy Principle.

Locke and the Origin of Ideas

- Descartes and other rationalists claimed that we have innate ideas (e.g. of God, or of extension), potentially yielding a priori knowledge.
- Book I of John Locke's *Essay* argues vigorously against "innate principles".
- Book II then aims to explain how all our various ideas can arise from experience (and so builds a case against innate ideas in general).
- Locke is thus an *empiricist* about ideas, and Hume's Copy Principle which he calls his "first principle" (*T* 1.1.1.12) follows Locke in this.

Simple and Complex Ideas

At Treatise 1.1.1.2, Hume divides all ideas and impressions into <u>simple</u> and <u>complex</u>:

"Simple perceptions or impressions and ideas are such as admit of no distinction nor separation. The complex are the contrary to these, and may be distinguished into parts."

■ In the first *Enquiry* (of 1748), Hume is far less explicit about this distinction (cf. *E* 2.6, 7.4); perhaps he later had doubts as to whether every idea is *absolutely* simple or complex?

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Weaponising the Copy Principle?

■ The 1748 *Enquiry* boldly flourishes the Copy Principle as a weapon against bogus ideas:

"When we entertain ... any suspicion, that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, from what impression is that supposed idea derived? And if it be impossible to assign any, this will serve to confirm our suspicion." (E 2.9)

But in practice, Hume almost always uses it not to dismiss ideas but to clarify them, by tracing them to their impression-source.

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Hume's First Argument for the Copy Principle

- There seem to be no counterexamples:
 - "After the most accurate examination, of which I am capable, I venture to affirm, that the rule here holds without any exception, and that every simple idea has a simple impression, which resembles it; and every simple impression a correspondent idea." (T 1.1.1.5)
- And since the impressions come before the ideas (T 1.1.1.8), they must cause the ideas rather than vice-versa.

Problems with Hume's Arguments

- Hume's first argument doesn't seem to fit very well with his use of the Copy Principle against opponents:
 - Suppose someone claims to have an idea which doesn't derive from a corresponding impression; he will simply deny Hume's generalisation and hence his argument for the Principle. Bennett (2002, pp. 100-1) presses this sort of objection.
 - Garrett (1997, pp. 46-8) mounts a defence on Hume's behalf.

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The Missing Shade of Blue

- After arguing for the Copy Principle, Hume himself strangely presents a counter-example: the famous "missing shade of blue" (T 1.1.1.10).
- He seems, however, to think this isn't a serious problem for his position, maybe because:
 - The "new" simple idea is being constructed (by something like blending) from materials that are provided by impressions, so his concept-empiricism isn't being fundamentally threatened.
 - The new idea could be derived from sensory experience, even if in this case it hasn't been - it's still imagistic (so clearly thinkable on Hume's view).

Hume's Second Argument for the Copy Principle

People who lack any particular sense modality always lack also the corresponding ideas:

"wherever by any accident the faculties, which give rise to any impressions, are obstructed in their operations, as when one is born blind or deaf; not only the impressions are lost, but also their correspondent ideas; ... likewise where they have never been put in action to produce a particular impression [such as] the taste of a pine-apple ..." (*T* 1.1.1.9)

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- Hume's second argument also has problems. It may seem very plausible that a blind man can have no idea of red, for example. But how can Hume know that this is the case? Might it not be that the man has private mental experiences that involve the colour red?
- At some risk of anachronism, some authors (e.g. Bennett, Dicker) argue that Hume's point is best understood as being not about private mental experience, but about public meaningfulness. The blind man cannot use the word "red" correctly, and they take this (positivist) moral to be the real point of Hume's position.

The Copy Principle and Imagism

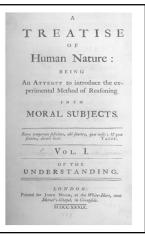
- If ideas are copies of impressions, they must be like mental images (but not necessarily visual).
- Assimilation of thinking to the having of mental images can be seriously problematic:
 - Hume often seems to treat mental separability as though it involves something like dividing up a raster image (as in a computer image editor).
 - As we saw, he has an impoverished view of the faculty of reflection, which ought to encompass awareness of mental activity such as doubting, reasoning, and inferring, as well as feeling.

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2(b)

Association of ideas, and the theory of relations



Hume on the Association of Ideas

Despite "the liberty of the imagination", there is a pattern to our thoughts:

"all simple ideas may be separated by the imagination, and may be united again in what form it pleases ... [yet there is] some bond of union among them, some associating quality, by which one idea naturally introduces another" (*T* 1.1.4.1)

Hume calls this "a gentle force" which explains why languages "so nearly correspond to each other" in the complex ideas that are represented within their vocabulary.

Three Principles of Association

Ideas may be associated in three ways:

"The qualities, from which this association arises ... are three, *viz.* RESEMBLANCE, CONTIGUITY in time or place, and CAUSE and EFFECT." (T 1.1.4.2)

- Association is "a kind of ATTRACTION, which in the mental world" has remarkable effects like gravity in the physical world (T 1.1.4.6).
 - The complex ideas that arise from such association "may be divided into RELATIONS, MODES, and SUBSTANCES" (*T* 1.1.4.7). Hume then sets out to examine these systematically.

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Locke on the Association of Ideas

Hume will appeal to the association of ideas with great enthusiasm, but this is in striking contrast to Locke's attitude to association:

"[3] this sort of Madness ... [4] this ... Weakness to which all Men are so liable, ... a Taint which so universally infects Mankind ... [5] ... there is [a] Connexion of *Ideas* wholly owing to Chance or Custom; *Ideas* that in themselves are not at all of kin, come to be so united in some Mens Minds that 'tis very hard to separate them ..."

(Locke, Essay II xxxiii 3-5)

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Natural and Philosophical Relations

- *T* 1.1.5 starts with a distinction between two senses of the word "relation". In one sense, we think of things as *related* when the idea of one *naturally* leads the thought to the other.
- So the "natural relations" are those that correspond to our associative tendencies – resemblance, contiguity, cause and effect.
- But when philosophers talk about "relations", they include any kind of arbitrary "subject of comparison". Hume develops Locke's taxonomy of such "philosophical relations", for a reason that will become clear in the next lecture ...

Locke on the Types of Relation

- Locke (Essay II xxv-xxviii) emphasises:
 - "Cause and Effect" (II xxvi 1-2)
 - "Relations of Time" (II xxvi 3-4)
 - "Relations of Place and Extension" (II xxvi 5)
 - "Identity and Diversity" (II xxvii)
 - "Proportional Relations" (II xxviii 1)
 - "Natural Relations" such as "Father and Son, Brothers ... Country-men" (II xxviii 2)
 - "Instituted, or Voluntary" relations such as "General ..., Citizen, ... Client" (II xxviii 3)
 - Various moral relations (II xxviii 4-16)

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Locke to Hume on Relations

LOCKE HUME

"Agreement" Resemblance Cause and effect Cause and effect Natural, Instituted, Moral (see T 1.1.4.3, 1.1.4.5) Relations of time Space and time

Relations of place

Identity Identity Diversity Contrariety

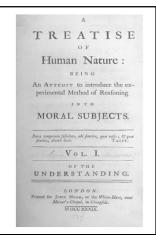
Proportional relations Proportions in quantity

Degrees in quality

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2(c)

Hume's theory of general (or abstract) ideas



Empiricism and Nominalism

- An empiricist account of the origin of ideas will naturally reject any non-sensory, purely intellectual grasp of abstract essences.
- Sensory experience is of particular things, hence empiricists tend towards nominalism, that "all things that exist are only particulars" (Locke, Essay III iii 6, cf. Treatise 1.1.7.6).
- How, then, do "general Words come to be made"? Locke says they "become general, by being made the signs of general Ideas".

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Locke on General Ideas

"Ideas become general, by separating from them the circumstances of Time, and Place, and any other Ideas, that may determine them to this or that particular Existence. By this way of abstraction they are made capable of representing more Individuals than one; each of which, having in it a conformity to that abstract Idea, is (as we call it) of that sort." (Essay III iii 6)

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Locke's General Idea of a Person

"the Ideas of the Persons Children converse with ... are like the Persons themselves, only particular. ... The Names they first give to them, are confined to these Individuals ... Nurse and Mamma ... Afterwards, ... [they] observe, that there are a great many other Things in the World, that ... resemble their Father and Mother ... they frame an Idea, which they find those many Particulars do partake in; and to that they give ... the name Man ... Wherein they make nothing new, but only leave out of the complex Idea they had of Peter and James, Mary and Jane, that which is peculiar to each, and retain only what is common to them all." (Essay III iii 7)

Locke's Notorious Triangle

"For abstract Ideas are not so obvious or easie to Children, or the yet unexercised Mind, as particular ones. ... For example, Does it not require some pains and skill to form the general Idea of a Triangle, (which is yet none of the most abstract, comprehensive, and difficult,) for it must be neither Oblique, nor Rectangle, neither Equilateral, Equicrural, nor Scalenon; but all and none of these at once. In effect, it is something imperfect, that cannot exist; an Idea wherein some parts of several different and inconsistent Ideas are put together." (Essay IV vii 9)

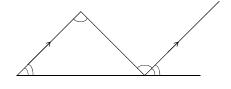
Berkeley's Attack

"If any man has the faculty of framing in his mind such an idea of a triangle as is here described, it is in vain to pretend to dispute him out of it, nor would I go about it. All I desire is, that the reader would fully and certainly inform himself whether he has such an idea or no. ... What more easy than for any one to look a little into his own thoughts, and there try whether he has, or can attain to have, an idea that shall correspond with the description that is here given of the general idea of a triangle, which is, neither oblique, nor rectangle, equilateral, equicrural, nor scalenon, but all and none of these at once?

(Principles, Introduction 13)

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"though the idea I have in view whilst I make the demonstration, be, for instance, that of an isosceles rectangular triangle, whose sides are of a determinate length, I may nevertheless be certain it extends to all other rectilinear triangles, of what sort or bigness soever. And that, because neither the right angle, nor the equality, nor determinate length of the sides, are at all concerned in the demonstration." (Principles, Introduction 16)



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Treatise 1.1.7: "Of abstract ideas"

■ Hume credits Berkeley with "one of the greatest and most valuable discoveries that has been made ... in the republic of letters:"

"that all general ideas are nothing but particular ones, annexed to a certain term, which gives them a more extensive signification, and makes them recal upon occasion other individuals, which are similar to them." (T 1.1.7.1)

■ Hume puts more emphasis than Berkeley on the associated "certain term" and on custom.

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Berkeley's Rival Account

"a word becomes general by being made the sign, not of an abstract general idea but, of several particular ideas, any one of which it indifferently suggests to the mind. For example, when it is said the change of motion is proportional to the impressed force ...; these propositions are to be understood of motion ... in general, and nevertheless it will not follow that they suggest to my thoughts an idea of motion without a body moved, or any determinate direction and velocity, ... It is only implied that whatever motion I consider, whether it be swift or slow, perpendicular, horizontal, or oblique, or in whatever object, the axiom concerning it holds equally true." (Principles, Introduction 11)

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Is Berkeley Fair to Locke?

■ Berkeley interprets Locke as believing in special, intrinsically general, abstract ideas (like indeterminate images). But Locke says:

"Ideas are general, when they are set up, as the Representatives of many particular Things: but universality belongs not to things themselves, which are all of them particular in their Existence, even those ... Ideas, which in their signification, are general. ... For the signification they have, is nothing but a relation, that by the mind of Man is added to them." (Essay III iii 11)

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General Ideas and Custom

"When we have found a resemblance among several objects ... we apply the same name to all of them ... After we have acquir'd a custom of this kind, the hearing of that name revives the idea of one of these objects, and makes the imagination conceive it with all its particular circumstances and proportions. But as the same word is suppos'd to have been frequently apply'd to other individuals ... the word not being able to revive the idea of all these individuals, only ... revives that custom, which we have acquir'd by surveying them. They are not really $\ \dots$ present to the mind, but only in power ... we ... keep ourselves in a readiness to survey any of them" (T 1.1.7.7)

The Revival Set

"... after the mind has produc'd an individual idea, upon which we reason, the attendant custom, reviv'd by the general or abstract term, readily suggests any other individual, if by chance we form any reasoning, that agrees not with it." (T 1.1.7.8)

"some ideas are particular in their nature, but general in their representation. A particular idea becomes general by being annex'd to a general term ... which from a customary conjunction has a relation to many other particular ideas, and readily recals them in the imagination." (*T* 1.1.7.10)

- Garrett calls this the revival set of associated ideas.

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The Separability Principle (SP)

■ Hume's statement of the Separability Principle seems to allude back to his "second principle, of the liberty of the imagination to transpose and change its ideas" (from T 1.1.3.4):

"We have observ'd, that whatever objects are different are distinguishable, and that whatever objects are distinguishable are separable by the thought and imagination. And ... these propositions are equally true in the inverse, and that whatever objects are separable are also distinguishable, and that whatever objects are distinguishable are also different." (T 1.1.7.3)

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Separability and Abstraction

■ SP implies that thinking of an abstract line without a specific length is impossible:

"itis evident at first sight, that the precise length of a line is not different nor distinguishable from the line itself, nor the precise degree of any quality from the quality" (T 1.1.7.3).

■ But if this is right, how is it that we can apparently distinguish "between figure and the body figur'd; motion and the body mov'd" (T 1.1.7.17)?

Refuting Abstract General Ideas

Hume sets out to argue (against Locke)

"that the mind cannot form any notion of quantity or quality without forming a precise notion of the degrees of each" (T 1.1.7.3)

- He does so using three considerations:
 - The Separability Principle (T 1.1.7.3);
 - The Copy Principle: any sensory impression must have determinate qualities (T 1.1.7.4-5);
 - The Conceivability Principle: no indeterminate object is possible in fact or thought (T 1.1.7.6).

Arguing for the Separability Principle

"For how is it possible we can separate what

is not distinguishable, or distinguish what is

■ This makes the SP look trivially true, but as

Hume applies it later, it seems to conceal

potentially debatable assumptions about

around like pixels in a computer image.

ideas, as sensory atoms that can be moved

Hume's argument for the Separability

Principle is extremely cursory:

not different?" (T 1.1.7.3)

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The Distinction of Reason

Hume appeals to his theory of general ideas: in a single object, we can see "many different resemblances and relations ..."

"Thus when a globe of white marble is presented, we receive only the impression of a white colour dispos'd in a certain form. ... But observing afterwards a globe of black marble and a cube of white, ... we find two separate resemblances, in what formerly seem'd, and really is, perfectly inseparable. ... we ... distinguish the figure from the colour by a distinction of reason ... view[ing] them in different aspects, according to the resemblances ..." (T 1.1.7.18)

David Hume, 1711-1776

3. The "Logic" of the Treatise



Faculties, Relations (again) and Causation, to Causal Inference (Appendix on Space and Time)

Peter Millican Hertford College, Oxford

From Last Time ...

- Hume starts from a broadly Lockean theory of ideas, but proposes his own version of concept empiricism (the Copy Principle), and modifies Berkeley's theory of general ideas and terms.
- Unlike his predecessors, he takes a positive view of association of ideas, e.g. in his account of how general terms operate (through customary association with a revival set of ideas).
- He sketches a theory of relations, but we have yet to see its significance ...

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Hurrying Through Space and Time

- Treatise 1.2, devoted to space and time, is widely neglected. The "Appendix" to this handout covers its principal highlights:
 - Hume appeals to the nature of our ideas to deny the infinite divisibility of space (*T* 1.2.1-2);
 - The same applies to time (T 1.2.2.4-5);
 - Our ideas of space and time are explained in terms of the "manner of appearance" of our perceptions, when these are disposed spatially (*T* 1.2.3.5) or in temporal sequence (*T* 1.2.3.6).

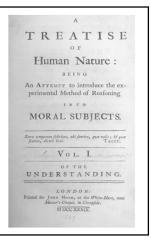
- Since the idea of time is derived from a succession of changing perceptions, it cannot properly be applied to anything unchanging (*T* 1.2.3.11);
- Parallel reasoning with the idea of space, shows we cannot form an idea of a vacuum (*T* 1.2.5.1);
- We can nevertheless think that we have such ideas, though these are in fact "fictions";
- Spatial ideas are acquired by sight or touch, and are accordingly made up of "atoms" of colour or solidity (*T* 1.2.3.15);
- Ideas of objects are derived from perceptions, and hence we cannot think of external objects as "specifically different" from perceptions (*T* 1.2.6).

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3(a)

Hume's Faculty Psychology, and some Complications



Hume and the Faculties

- Some of Hume's most famous arguments are expressed in terms of *faculties*:
 - T 1.3.6 (and E 4): inductive inference results from processes of <u>the imagination</u>, and is not "determin'd by" <u>reason</u> or <u>the understanding</u>.
 - T 1.4.2: belief in external objects is produced by <u>the imagination</u> rather than by <u>reason</u>.
 - T 2.3.3: <u>reason</u> alone cannot motivate action.
 - T 3.1.1 (and EPM): morals are "deriv'd from" <u>moral sense</u> or <u>sentiment</u> rather than <u>reason</u>.

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Professor Peter Millican, Hertford College, Oxford

Faculties, Induction, and Body

- "... the next question is, whether experience produces the idea by means of the understanding or imagination; whether we are determined by reason to make the transition, or by ... association ... of perceptions." (T 1.3.6.4)
- "The subject, then, of our present enquiry, is concerning the causes which induce us to believe in the existence of body: ... we ... shall consider, whether it be the senses, reason, or the imagination, that produces the opinion of a continu'd or of a distinct existence." (T 1.4.2.2)

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Faculties and Morality

- "... we need only consider, whether it be possible, from reason alone, to distinguish betwixt moral good and evil, or whether there must concur some other principles to enable us to make that distinction." (T 3.1.1.3-4)
- "... The rules of morality, therefore, are not conclusions of our reason" (*T* 3.1.1.6)
- "There has been a controversy started of late ... concerning the general foundation of MORALS; whether they be derived from reason, or from SENTIMENT ..." (M 1.3)

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Outline of Humean Faculties

■ The (external) Senses

These present to the mind *impressions of* sensation (e.g. of sight, touch, sound, smell, and gustatory taste), thus creating within the mind *ideas* that are copies of those impressions.

■ Reflection (or internal sense)

Presents to the mind impressions of reflection

("secondary" impressions – see T 2.1.1.1 – that
arise from the interplay of ideas in our mind, such
as passions and emotions), thus again creating
ideas that are copies of those impressions.

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■ Imagination (or the Fancy)

Traditionally the faculty of having images (though not confined to visual images). Since Hume takes all of our ideas to be imagistic (as they are copied from sensory input), this is therefore our primary thinking faculty. Imagination is associated with the power not only to replay ideas in our thinking, but also to transpose, combine and mix them.

■ Memory

Replays ideas in their original order (lacking the freedom of the imagination), and with great vivacity, almost like that of an impression. Thus Hume often refers to "impressions of the memory" (as in *T* 1.3.9.7, and note the title of *T* 1.3.5).

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Reason and Will: The Traditional Major Division

- Reason (or the Understanding)
 Traditionally the overall <u>cognitive</u> faculty: discovers and judges truth and falsehood.
- The Will

Traditionally the <u>conative</u> faculty: forms intentions in response to desires and passions.

Hume only rarely refers to the will as a faculty, and as we shall see, his view of reason is complicated by his treating all of our reasoning as taking place — through imagistic ideas — within "the imagination".

Hutcheson on the Faculties

"Writers on these Subjects should remember the common Divisions of the Faculties of the Soul. That there is 1. *Reason* presenting the natures and relations of things, antecedently to any Act of Will or *Desire*: 2. <u>The Will</u>, or *Appetitus Rationalis*, or the disposition of Soul to pursue what is presented as good, and to shun Evil. ... Below these [the Antients] place two other powers dependent on the Body, the <u>Sensus</u>, and the *Appetitus Sensitivus*, in which they place the particular <u>Passions</u>: the former answers to the <u>Understanding</u>, and the latter to the <u>Will</u>."

Illustrations upon the Moral Sense (1742), 219-20

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Locke's Scepticism about Faculties

- Locke ridicules talk of faculties as a source of philosophical error, and says he would be inclined to avoid it were it not so much in fashion that doing so would seem like "affectation" (Essay II xxi 17-20).
- It is a serious mistake to speak of our faculties "as so many distinct Agents" (Essay II xxi 6).
- When we refer to man's "understanding", all we can properly mean is that man has a power to understand. A "faculty" just names a power, as Hume apparently agrees (e.g. T 1.3.10.9, E 1.14).

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Hume Against Faculty Talk

Hume criticises scholastic Aristotelians for disguising their ignorance through

"their invention of the words *faculty* and *occult quality*. ... They need only say, that any phaenomenon, which puzzles them, arises from a faculty ..., and there is an end of all dispute and enquiry upon the matter." (*T* 1.4.3.10)

■ Think of Molière's famous 1673 parody: "Why does opium make one sleep?" "Because it has a soporific faculty." Mere *labelling* of a power does not provide any real explanation.

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Apparent Paradox, and a Dilemma

- But Hume's conclusions aren't trivial in this way; instead they seem almost paradoxical, arguing in *T* 1.3.6 that causal inference is due to the imagination *rather than* reason (§4, §12), and at *T* 1.4.2.3-13 that our belief in objects does not arise from the senses. Posing these issues in terms of faculties seems dubious either way:
 - To say that mental operation X is due to our faculty of X-ing seems vacuous, while to say that X is due to some other faculty Y seems almost self-contradictory.

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- Note also that despite the argument of *T* 1.3.6, Hume does continue to treat causal inference as an operation of reason:
 - T 1.3.11.2 ("human reason" includes *proofs* and *probabilities*);
 - 1.4.2.47, 1.4.4.15 ("reason" includes inference from cause and effect);
 - 2.3.3.3 ("reason is nothing but the discovery of" cause and effect relations);
 - 3.1.1.12 ("reason, in a strict and philosophical sense, ... discovers the connexion of causes and effects");
 - 3.1.1.18 ("the operations of human understanding [include] the inferring of matter of fact").

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Resolving the Paradox

- There are two popular ways of resolving this apparent paradox. The first is to claim that when Hume denies that inductive inference is "determin'd by reason" (*T* 1.3.6.4, 12), he is not denying that it is an operation of "reason" in his own favoured sense, but only in some other narrow sense, for example:
 - A priori demonstration (Beauchamp & Rosenberg, 1981)
 - Lockean stepwise inference (Owen, 1994, 1999)
 - Lockean rational perception (Millican, 1995, 2002)
 - Non-associative reasoning (Loeb, 2002)
- The obvious problem here is that Hume never hints at any such ambiguity (cf. Garrett 1997, pp. 84-5).

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- The second possible method of resolution is to find a reading which, without postulating any ambiguity in "reason", can consider inductive inference as <u>both</u>:
 - a bona fide operation of reason;
 - "not determin'd by reason".
- Garrett (1997) maintains that for Hume, "reason" is "the general faculty of making inferences or producing arguments". Thus induction is an operation of reason, but it is not "determin'd by reason" because "we are not caused to engage in induction by grasping an ... argument supporting its reliability" (pp. 92-3).
- Millican (2012) takes "reason" as the cognitive faculty. Induction is a cognitive operation, but it is not "determin'd by reason" because it has a non-cognitive basis.

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Hume on Reason and Understanding

- Hume, like Hutcheson, implicitly identifies Reason with "the understanding" dozens of times, for example:
 - "When the mind [makes an inductive inference] it is not determin'd by reason, but by certain principles, which associate together the ideas of these objects, and unite them in the imagination. Had ideas no more union in the fancy than objects seem to have to the understanding, ..." (T 1.3.6.12)
 - Other examples are at T 1.3.6.4, 1.3.13.12, 1.4.1.1 & 12, 1.4.2.14, 46, & 57, 1.4.7.7, 2.3.3.2-6, 3.1.1.16-18 & 26; also compare 2.2.7.6 n. with 1.3.9.19 n.

Hume on Reason as Cognition

- "Reason is the discovery of truth or falshood." (T3.1.1.9)
- "That Faculty, by which we discern Truth and Falshood ... the Understanding" (E 1.14, note in 1748/1750 editions)
- "reason ... conveys the knowledge of truth and falsehood" (M App 1.21)
- "... reason, in a strict sense, as meaning the judgment of truth and falsehood ..." (DOP 5.1)
- See also *T* 2.3.3.3, 2.3.3.5-6, 2.3.3.8, 2.3.10.6, 3.1.1.4, 3.1.1.19 n. 69, 3.1.1.25-27, 3.2.2.20, M 1.7, M App 1.6.

Distinguishing Between Faculties

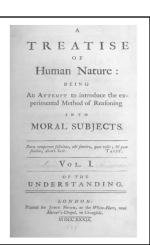
- imagination/reason (*T* 1.4.2.2); imagination/ memory (T 1.3.5); imagination/the senses (T 1.4.2.2); imagination/passions (T 2.2.2.16).
- reason/memory (T 3.3.4.13); reason/the senses (T 1.4.2.2); reason/the will (T 2.3.3.4).
- memory/the senses (T 1.1.2.1).
- Hume *never* distinguishes between "reason" and "the understanding", or between either of these and "the judgment". And he insists that our "intellectual faculty" is undivided (T 1.3.7.5 n.20).

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- To make sense of this, recall that Hume thinks all of our ideas are imagistic; indeed he attacks the rationalist view that we have pure intellectual ideas (T 1.3.1.7).
 - If so, then all of our reasoning must take place in the "imagination" (as traditionally conceived), and "reason" cannot be some separate part of the mind.
 - Thus the distinction between "reason" and "the imagination" must be drawn on the basis of the kinds of principles that govern our thinking.
 - Associative principles are paradigmatically "imaginative" rather than cognitive: we follow our own thoughts rather than perceiving how things are. Induction is cognitive, yet founded on association.

3(b)

Hume's Dichotomy, and the Conceivability **Principle**



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"Reason" as Part of "the Imagination"

- But at various points in the *Treatise*, Hume seems to blur the standard faculty boundaries:
 - "... the understanding or imagination can draw inferences from past experience ..." (T 1.3.8.13)
 - "... the judgment, or rather the imagination ..." (*T* 1.3.9.19)
 - "The memory, senses, and understanding are ... all ... founded on the imagination" (T 1.4.7.3)
 - "... the imagination or understanding, call it which you please ..." (T 2.3.9.10, also DOP 1.8)
 - "... my senses, or rather imagination ..." (T 1.4.2.56)
 - "... the understanding, that is, ... the general and more establish'd properties of the imagination" (T 1.4.7.7)

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Hume's Dichotomy

- Hume starts *T* 1.3.1 by dividing his seven types of relation into two groups (*T* 1.3.1.1):
 - The Four "Constant" Relations
 Those relations that "depend entirely on the ideas, which we compare together" (i.e. resemblance, contrariety, degrees in quality, proportions in quantity or number);
 - The Three "Inconstant" Relations
 Those relations that "may be chang'd without any change in the ideas" (i.e. identity, relations of time and place, cause and effect).

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A Taxonomy of Mental Operations

- Hume argues, rather simplistically, that his seven relations map neatly onto four different mental operations:
 - resemblance, contrariety, and degrees in quality are "discoverable at first sight" (T 1.3.1.2)
 - proportions of quantity or number are susceptible of demonstration (T 1.3.1.2-5)
 - identity and relations of time and place are matters of perception rather than reasoning (T 1.3.2.1)
 - causation is the only relation "that can be trac'd beyond our senses, [to] existences and objects, which we do not see or feel" (T 1.3.2.3)

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Perception Intuition Inconstant relations
Sensory Perception

resemblance identity
 contrariety situations in time
 degrees in quality and place

 Reasoning
 Demonstration
 Probability

 ■ proportions in
 ■ causation *

quantity and number

* This explains why most of Treatise 1.3.2-14, nominally on "probability", focuses on causation and causal reasoning.

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Hume's Dichotomy – the motive

- Hume gives his taxonomy of relations in order to facilitate his arguments:
 - That the Causal Maxim cannot be intuitively certain (*T* 1.3.3.2);
 - That relations of virtue and vice are not demonstrable (*T* 3.1.1.19).
- He seems to be arguing from the principle:
 - Any proposition that is intuitively or demonstratively certain can contain only constant relations.

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The Failure of the Dichotomy

- Sadly, this is nonsense. There are many "intuitive" or "demonstrable" propositions involving identity, relations of time and place, or causation:
 - If A=B and B=C, then A=C.
 - Anything that lies inside a small building lies inside a building.
 - Every mother is a parent.
 - Anyone whose paternal grandparents have two sons, has an uncle.

Demonstrability Is Not Analysable in Terms of Relations

■ It is now well understood that whether a complex proposition is logically provable will often depend on things like order, bracketing, and scope, not on the nature of the specific relations involved. The first of the formulae below is demonstrable, the second is not, but they contain exactly the same relations:

 $\exists x (\forall y \ Bxy) \rightarrow \forall y (\exists x \ Bxy)$ $\forall y (\exists x \ Bxy) \rightarrow \exists x (\forall y \ Bxy)$

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The Source of Hume's Mistake?

- I suggest that Hume confused, when considering propositions about objects:
 - Supervenience: what is implied by the properties of the objects themselves, independently of their relative situation etc.
 - Analyticity: what is implied by our ideas (or impressions) of the objects themselves, independently of ideas about their situation etc.

(See Bennett 1971: 250-6 and 2001: 242-4; also Millican 2017: §3, which highlights Hume's tendency to conflate objects and perceptions.)

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Hume's Fork: Relations of Ideas ...

- In the Enquiry, Hume replaces his Dichotomy with a distinction amongst propositions based on the Conceivability Principle:
 - Relations of Ideas (in modern terms, analytic statements, understood as those whose meaning entails their truth) can be known a priori - without any dependence on experience or real existence - by inspecting ideas; hence their falsehood is inconceivable and they are necessarily true.

Pythagoras' Theorem. (E 4.1) $3 \times 5 = \frac{1}{2} \times 30$. (E 4.1) All bachelors are unmarried.

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... and Matters of Fact

Hume's Conceivability Principle

Fortunately, Hume mostly relies not so much on

his Dichotomy as a criterion of demonstrability, but rather, on the Conceivability Principle:

or, in other words, that nothing we imagine is absolutely

impossible." (T 1.2.2.8)

"'Tis an establish'd maxim in metaphysics, That whatever the mind clearly conceives includes the idea of possible existence.

"To form a clear idea of any thing, is an undeniable argument for its possibility, and is alone a refutation of any pretended demonstration against it." (T 1.3.6.5)

"whatever we conceive is possible, at least in a metaphysical sense: but wherever a demonstration takes place, the contrary

is impossible, and implies a contradiction." (A 11, cf. E 12.28)

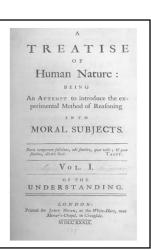
- Matters of Fact cannot be known a priori, and their truth / falsity are equally conceivable:
 - The sun will rise tomorrow. (E 4.2)The sun will not rise tomorrow. (E 4.2) This pen will fall when released in air.
- Perhaps the closest modern term is synthetic: a proposition whose truth "is determined by the facts of experience" (Ayer, LTL 1971, p. 105).
- But Hume (like Ayer) presumes that the analytic/synthetic, a priori/a posteriori, and necessary/contingent distinctions all coincide.

Is Hume's Fork Defensible?

- Though orthodox for many years, Hume's Fork has been seriously challenged more recently:
 - W. V. O. Quine's "Two Dogmas of Empiricism" (1951) attacked the analytic/synthetic distinction.
 - Saul Kripke's Naming and Necessity (1972) argued against identification of the a priori/a posteriori and necessary/contingent distinctions.
 - Hilary Putnam's "The Meaning of Meaning" (1975) attacked the idea that meaning resides in our "ideas" (or anything else "in the head").
 - Millican (2017) argues that Hume's Fork stands up surprisingly well to these and other challenges.

3(c)

Tracking the Idea of Cause (while taking some detours)



The Idea of Causation

- To understand reasoning to the unobserved (i.e. *probable* reasoning, though Hume has not yet used this term), "we must consider the idea of *causation*, and see from what origin it is deriv'd" (*T* 1.3.2.4).
- The search for the origin of this idea will shape the remainder of *Treatise* 1.3.
- There is no specific quality that characterises causes and effects, so it must be some *relation* between the two. (*T* 1.3.2.5-6)

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Necessary Connexion

■ There follows a famous passage, which is commonly misunderstood:

"Shall we then rest contented with these two relations of contiguity and succession, as affording a compleat idea of causation? By no means. An object may be contiguous and prior to another, without being consider'd as its cause. There is a NECESSARY CONNEXION to be taken into consideration; and that relation is of much greater importance, than any of the other two above-mention'd." (*T* 1.3.2.11)

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First "Field": the Causal Maxim

- Treatise 1.3.3 discusses the Causal Maxim:

 "Tis a general maxim in philosophy, that
 whatever begins to exist, must have a cause of
 existence." (T 1.3.3.1)
- Hume argues that this is neither intuitively nor demonstratively certain. (*T* 1.3.3.1-8)
- "Since it is not from knowledge or any scientific reasoning, that we derive [this] opinion ..., [it] must necessarily arise from observation and experience. ..." (*T* 1.3.3.9)

Contiguity and Priority

- We find causes and effects to be *contiguous* in space and time (*T* 1.3.2.6), though a footnote hints at a significant reservation (explored in *T* 1.4.5, which points out that perceptions other than of sight and touch lack spatial location).
- We also find causes to be *prior* to their effects (*T* 1.3.2.7), though again Hume seems to indicate that this isn't a particularly crucial matter (*T* 1.3.2.8).
- There still seems to be something missing ...

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To Neighbouring Fields

- Hume is looking for the crucial extra component (beyond single-case contiguity and succession) that makes up our idea of cause and effect.
- It seems elusive, so he proceeds like those who "beat about all the neighbouring fields, without any certain view or design, in hopes their good fortune will at last guide them to what they search for" (*T* 1.3.2.13).
- There are two such fields ...

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The Sinking of the Causal Maxim

"... The next question, then, shou'd naturally be, how experience gives rise to such a principle? But as I find it will be more convenient to sink this question in the following, Why we conclude, that such particular causes must necessarily have such particular effects, and why we form an inference from one to another? we shall make that the subject of our future enquiry. 'Twill, perhaps, be found in the end, that the same answer will serve for both questions." (T 1.3.3.9)

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Does Hume Accept the Causal Maxim?

- Unfortunately Hume never returns explicitly to the Causal Maxim, and some of his contemporaries took him to be denying it.
- But there is significant evidence that he accepts it, deriving both from his general deterministic outlook (as we shall see later), and from letters that he wrote to those contemporaries who misunderstood ...
 - (For full discussion of this, see Millican, "Hume's Determinism", Canadian Journal of Phil., 2010)

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Letter to John Stewart (1754)

"... But allow me to tell you, that I never asserted so absurd a Proposition as that any thing might arise without a Cause: I only maintain'd, that our Certainty of the Falshood of that Proposition proceeded neither from Intuition nor Demonstration; but from another Source. That Caesar existed, that there is such an Island as Sicily; for these Propositions, I affirm, we have no demonstrative nor intuitive Proof. Woud you infer that I deny their Truth, or even their Certainty?" (HL i 186)

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T 1.3.5: "Of the impressions of the senses and memory"

- Treatise 1.1 said that memory presents ideas, not impressions, but T 1.3.4.1 explains that these ideas "are equivalent to impressions".
- Hume's main point here is that the perceptions of the senses and memory are alike in being more strong and lively – having more force and vivacity – than the ideas of the imagination.
- That force and vivacity, apparently, is what enables them to act as a "foundation of that reasoning, which we build ... when we trace the relation of cause and effect" (*T* 1.3.5.7)

Letter from a Gentleman (1745)

"it being the Author's Purpose, in the Pages cited in the Specimen, to examine the Grounds of that Proposition; he used the Freedom of disputing the common Opinion, that it was founded on demonstrative or intuitive Certainty; but asserts, that it is supported by moral Evidence, and is followed by a Conviction of the same Kind with these Truths, That all Men must die, and that the Sun will rise To-morrow." (LFG 26)

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Second "Field": Causal Inference

- Treatise 1.3.4 argues that causal reasoning, if it is to result in real belief, must start from something perceived or remembered.
- *T* 1.3.5.1 sets out a corresponding agenda:

"Here therefore we have three things to explain, viz. *First*, The original impression. *Secondly*, The transition to the idea of the connected cause or effect [i.e. causal inference]. Thirdly, The nature and qualities of that idea [i.e. Hume's theory of belief]."

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T 1.3.6: "Of the inference from the impression to the idea"

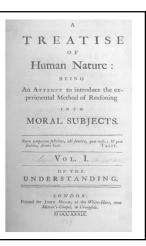
- This section contains the first presentation of Hume's famous argument concerning causal reasoning (or "induction"), which apparently raises the notorious "problem of induction".
- In context, however, this topic is reached as a "neighbouring field" in Hume's search for the origin of the idea of causal necessity, answering the question raised at T 1.3.3.9: Why we conclude, that such particular causes must necessarily have such particular effects, and why we form an inference from one to another.

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3(d)

APPENDIX:

Treatise 1.2 on Space and Time



Treatise Book 1 Part 2

- Treatise 1.2 is often ignored in the Hume literature, and considered very dubious.
- In it he applies his theory of ideas to draw ambitious conclusions about the nature of our ideas of space and time, and hence the nature of space and time themselves.
- He starts by arguing that neither our ideas, nor – consequently – space and time themselves, can be infinitely divisible. Our spatial ideas derived from vision turn out to be composed of simple ideas like indivisible coloured pixels.

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Treatise 1.2.1: "Of the infinite divisibility of our ideas of space and time"

- It is "evident from the plainest observation" "that the capacity of the mind is limited, and can never attain a full and adequate conception of infinity".
- Hence "the *idea*, which we form of any finite quantity, is not infinitely divisible" (*T* 1.2.1.2).
- If we divide our ideas in imagination, we must eventually reach "a *minimum*" (*T* 1.2.1.3).
- The same goes for sensory impressions, as illustrated by the experiment in which we view an ink spot then gradually retreat from it until the point *just before* it becomes invisible. (*T* 1.2.1.4)

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An Interesting Speculation

- Rolf George (in Hume Studies, 2006) suggests that Hume's confidence in the Separability Principle (SP) might well have been shaken by James Jurin's Essay Upon Distinct and Indistinct Vision (1738).
- If we retreat until the red dot just disappears, the (thinner) red line will still be visible. So our visual field does not in fact appear to be made up of a grid of "pixels".
- SP does not feature in the *Enquiry* of 1748, where Hume also seems far less committed to the simple/complex distinction.

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Conceiving of Tiny Things

Because our minimal perceptions are atomic (without any parts),

"Nothing can be more minute, than some ideas, which we form in the fancy; and images, which appear to the senses; since these are ideas and images perfectly simple and indivisible. The only defect of our senses is, that they give us disproportion'd images of things, and represent as minute and uncompounded what is really great and compos'd of a vast number of parts." (T1.2.1.5)

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"This however is certain, that we can form ideas, which shall be no greater than the smallest atom of the animal spirits of an insect a thousand times less than a mite: And we ought rather to conclude, that the difficulty lies in enlarging our conceptions so much as to form a just notion of a mite or even of an

mite, or even of an insect a thousand times less than a mite. For in order to form a just notion of these animals, we must have a distinct idea representing every part of them ..."

(7 1.2.1.5)

Hooke, Micrographia, 1665

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Treatise 1.2.2: "Of the infinite divisibility of space and time"

■ Treatise 1.2.2 starts with a bold statement: "Wherever ideas are adequate representations of objects, the relations, contradictions and agreements of the ideas are all applicable to the objects; ... But our ideas are adequate representations of the most minute parts of extension; and thro' whatever divisions and sub-divisions we may suppose these parts to be arriv'd at, they can never become infereior to some ideas, which we form. The plain consequence is, that whatever appears impossible

and contradictory upon the comparison of these ideas, must be really impossible and contradictory, without any farther excuse or evasion." (T 1.2.2.1)

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The Adequacy of Our Ideas

■ Since Hume thinks "our ideas are adequate representations of the most minute parts of extension", he argues that the impossibility of infinite division of our ideas implies the impossibility of infinite division of space:

"I first take the least idea I can form of a part of extension, and being certain that there is nothing more minute than this idea, I conclude, that whatever I discover by its means must be a real quality of extension. I then repeat this idea once, twice, thrice, &c. ..." (T 1.2.2.2)

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A Mathematical Objection

- Mathematically, Hume's argument seems dubious. Imagine dividing an extension in two and taking the first half, then dividing that in two and again taking the first half, and so on ...
- It seems that one could potentially go on forever, yielding an infinite number of proportional (rather than aliquot i.e. equal-sized) parts. In a footnote to T 1.2.2.2, Hume calls this objection "frivolous", insisting that even proportional parts "cannot be inferior to those minute parts we conceive".

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From Inconceivability to Impossibility

- Hume appears to be arguing here from the inconceivability of certain relations of ideas to the impossibility of things in the world (this is the converse of the Conceivability Principle).
- In general this seems dubious: why should our powers of conception (with our limited stock of ideas derived from experience etc.) reach to everything that's possible in nature?
- But Hume restricts use of this Inconceivability Principle to where "our ideas are adequate".

The Impossibility of Infinite Divisibility

- Although each of our minimal ideas is indivisible and therefore not extended, when we place them adjacent to each other we get an extended pattern.
- Repeating this *in infinitum* would produce an infinite extension, so it follows that no finite extension can accommodate an infinite number of such minima:

"the idea of an infinite number of parts is ... the same idea with that of an infinite extension".

Rebutting the Mathematicians

■ Later in the section, Hume appeals to the Conceivability Principle to rebut the arguments of mathematicians in favour of infinite divisibility:

"Here then is an idea of extension, which consists of parts or inferior ideas, that are perfectly indivisible: Consequently this idea implies no contradiction: Consequently 'tis possible for extension really to exist conformable to it ..." (T 1.2.2.9)

The Actual Parts Metaphysic

- Hume's argument seems to beg the question, because if space is infinitely divisible, then our minimal ideas of it (which are indivisible) are not adequate.
- Tom Holden (2004) suggests that Hume is presupposing an "actual parts" metaphysic, whereby anything that is divisible must *in advance* consist of the actual parts into which it is divided.

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Fundamental Parts

Holden's suggestion is supported by Hume's appeal to an argument by Nicholas de Malezieu:

"Tis evident, that existence in itself belongs only to unity, and is never applicable to number, but on account of the unites, of which the number is compos'd. ... 'Tis therefore utterly absurd to suppose any number to exist, and yet deny the existence of unites; and as extension is always a number ..." (*T* 1.2.2.3)

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The Experienced Manifold

- Don Baxter (2009) provides an alternative suggestion, that Hume's (somewhat Kantian) aim "was to find out about objects as they appear to us by examination of the ideas we use to represent them" (p. 117).
- On this account, Hume's ambition goes no further than "knowing perfectly the manner in which objects affect my senses, and their connexions with each other, as far as experience informs me of them" (T 1.2.5.26)

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Space and Time

- "All this reasoning takes place with regard to time", and besides, it is of the essence of temporal moments to be successive (rather than co-existent). (*T* 1.2.2.4)
- "The infinite divisibility of space implies that of time, as is evident from the nature of motion. If the latter, therefore, be impossible, the former must be equally so." (*T* 1.2.2.5)

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Extension as a "Manner of Appearance"

- The Copy Principle should reveal the nature of our idea of extension (*T* 1.2.3.1), but we don't seem to have any distinct *impression* from which it could be derived.
- The idea of extension is abstract (in Hume's sense of a revival set linked to a general term) and derived from the resemblance in the "manner of appearance" of our spatially disposed impressions, whether of coloured points or impressions of touch (*T* 1.2.3.5).

Time and Perceivable Succession

- "The idea of time [is] deriv'd from the succession of our perceptions ... ideas as well as impressions ... of reflection as well as of sensation, ... [it is] an abstract idea, which comprehends a still greater variety than that of space, and yet is represented in the fancy by some particular individual idea of a determinate quantity and quality." (T 1.2.3.6)
- So the idea of duration "must be deriv'd from a succession of [perceivably] changeable objects" (*T* 1.2.3.8), and since it is not separable from such a succession (*T* 1.2.3.10) cannot properly be applied to anything unchangeable (*T* 1.2.3.11).

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Spatial Atoms

- "The idea of space is convey'd to the mind by ... the sight and touch ... That compound impression, which represents extension, consists of several lesser impressions, that are indivisible to the eye or feeling, and may be call'd impressions of atoms or corpuscules endow'd with colour and solidity. ... There is nothing but the idea of their colour or tangibility, which can render them conceivable by the mind." (*T* 1.2.3.15)
- "We have therefore no idea of space or extension, but when we regard it as an object either of our sight or feeling." (T 1.2.3.16)

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Humean "Fictions"

- We imagine we have an exact standard of equality, applicable even to a supposed infinitely divisible space, but that imaginary standard is a "fiction" which arises from the tendency of our imagination to over-extrapolate (*T* 1.2.4.24).
- The "idea" of a vacuum is a fiction, whose origin Hume traces to our natural tendency to confuse ideas and use words without ideas (*T* 1.2.5.19-23). Likewise duration as applied to unchanging objects, which cannot be a genuine impression-copied idea (*T* 1.2.5.28-9, cf. 1.2.3.11).

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Our Idea of Existence

The final section of Part 2 applies similar considerations to our idea of existence:

"The idea of existence ... is the very same with the idea of what we conceive to be existent. To reflect on any thing simply, and to reflect on it as existent, are nothing different" (*T* 1.2.6.4)

■ The Copy Principle also implies that we cannot think of external objects as anything "specifically different from our perceptions" (*T* 1.2.6.7-9) – this is important in *T* 1.4.2.

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Geometry, and the Vacuum

- T 1.2.4.17-32 argues that geometrical ideas, deriving from visual and tangible appearances, cannot achieve a precision beyond the limits of possible perception. So we cannot conclude, for example, that the diagonal of an isosceles right triangle will be exactly $\sqrt{2}$ times the other sides.
- "If ... the idea of space or extension is nothing but the idea of visible or tangible points distributed in a certain order; it follows, that we can form no idea of a vacuum, or space, where there is nothing visible or tangible." (T 1.2.5.1)

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Is Hume Denying a Vacuum?

At T 1.2.5.25-6, Hume addresses the objection that he discusses "only the manner in which objects affect the senses, without endeavouring to account for their real nature and operations".

"I answer this objection, by pleading guilty, and by confessing that my intention never was to penetrate into the nature of bodies, or explain the secret causes of their operations. ... I am afraid, that such an enterprize is beyond the reach of human understanding, and that we can never pretend to know body otherwise than by those external properties, which discover themselves to the senses."

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Afterword on Space and Time

- In January 1772, Hume wrote to his printer, William Strahan:
 - "... about seventeen Years ago ... I intended to print four Dissertations, the natural History of Religion, on the Passions, on Tragedy, and on the metaphisical Principles of Geometry. ... but before the last was printed, I happend to meet with Lord Stanhope who was in this Country, and he convincd me, that either there was some Defect in the Argument or in its perspicuity; I forget which; and I wrote to Mr Millar, that I woud not print that Essay; ... I wrote a new Essay on the Standard of Taste ..."
- Lord Philip Stanhope was a notable mathematician, and Hume was friendly (perhaps related) with his wife. Space and time feature very little in Hume's later works, playing only a minor role in the first *Enquiry*, Section 12 Part 2.

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David Hume, 1711-1776

4. Induction and Belief



Peter Millican Hertford College, Oxford

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■ At T 1.3.2.6-8, individual causes are (tentatively) found to be related to their effects by the relations of contiguity and priority.

- But a key element identified at T 1.3.2.11 as "NECESSARY CONNEXION" - is more elusive.
 - At T 1.3.2.13, Hume decides to search two "neighbouring fields" to find this element's source:
 - First, he shows that the Causal Maxim is neither intuitively nor demonstratively certain (T 1.3.3).
 - Secondly, he turns to consider "why we conclude, that such particular causes must necessarily have such particular effects, and why we form an inference from one to another?" (T 1.3.3.9).

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■ In *Treatise* 1.3.6, Hume doesn't seem fully to appreciate his new argument's significance - it is mainly a staging post in his search for the origin and nature of our idea of causation, and is not explicitly presented as sceptical in nature.

The Famous Argument (×3)

- In the Abstract of 1740 it is elevated to a much more prominent position, as the centre-piece of Hume's "Chief Argument".
- The fullest and clearest version is in the first Enquiry, Section 4, whose title acknowledges that it raises "Sceptical Doubts".

From Last Time ...

- Treatise Book 1 Part 3, the longest part of the work, is entitled "Of Knowledge and Probability".
 - T 1.3.1 deals with "Knowledge" (in a strict sense, requiring absolute certainty). Hume sees this as confined to the four "constant" relations in his (dubious) Dichotomy of T 1.3.1.1.
 - At T 1.3.2.3, causation is found to be the only relation that can ground a "probable" inference from one object to another.
 - Accordingly the rest of Treatise 1.3 focuses on causation and causal reasoning.

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4(a)

Hume's Argument concerning Induction

TREATISE Human Nature: BEING An ATTEMPT to introduce the e perimental Method of Reasoning MORAL SUBJECTS. Rara temparum felicitas, ubi fentire, qua velis; & qua fentins, dicere licet. TACLY. Vol. I. UNDERSTANDING. LONDON: M DCC XXXIX.

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Streamlining the Argument

- In the *Treatise*, the focus is on paradigm *causal* inference "from the impression to the idea".
- In the Abstract and Enquiry, Hume broadens it: "What is the nature of that evidence, which assures us of any real existence and matter of fact, beyond the present testimony of our senses, or the records of our memory." (E 4.3, cf. A 8)
- He then states that all such [inductive] inference depends on causal relations (A 8, E 4.4). This assimilation of inductive and causal inference both generalises, and avoids duplication later. 174

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Causal Inference Is Not A Priori (1)

- In the *Treatise*, Hume starts by arguing that causal inference cannot be a priori, just because we can *conceive* of things coming out differently (*T* 1.3.6.1).
- Here he evinces the [common, but debatable] assumption that any a priori inference would have to yield complete certainty.
- "Tis therefore by EXPERIENCE only, that we can infer the existence of one object from that of another" (*T* 1.3.6.2).

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A Thought Experiment

In the Abstract and Enquiry, Hume imagines Adam (or ourselves, prior to experience), trying to predict the result of a billiard-ball collision:



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





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Causal Inference Is Not A Priori (2)

Hume's subsequent argument is stronger now, because he doesn't rely just on conceivability, but puts more emphasis on arbitrariness:

"Were any object presented to us, and were we required to pronounce concerning the effect, which will result from it, without consulting past observation; after what manner, I beseech you, must the mind proceed in this operation? It must invent or imagine some event, which it ascribes to the object as its effect; and it is plain that this invention must be entirely arbitrary. ..." (£ 4.9)

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Experience and Constant Conjunction

■ The kind of experience on which causal inference is based is repeated patterns of one thing, *A*, followed by another, *B*:

"Without any farther ceremony, we call the one *cause* and the other *effect*, and infer the existence of the one from that of the other." (*T* 1.3.6.2) "Thus ... we have ... discover'd a new relation

betwixt cause and effect [in addition to *individual case* contiguity and priority] ... This relation is their CONSTANT CONJUNCTION." (*T* 1.3.6.3)

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"Perhaps 'twill appear in the end ..."

■ The capitalisation in *T* 1.3.6.3 clearly links back to *T* 1.3.2.11, as does the text:

"Contiguity and succession are not sufficient to make us pronounce any two objects to be cause and effect, unless ... these two relations are preserv'd in several instances [i.e. there's a constant conjunction]."

But how can this give rise to the new idea of necessary connexion? Anticipating T 1.3.14.20,

"Perhaps 'twill appear in the end, that the necessary connexion depends on the inference, instead of the inference's depending on the necessary connexion".

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A Question of Faculties

■ Since causal reasoning from the impression of cause *A* to the idea of effect *B* is "founded on past *experience*, and on our remembrance of their *constant conjunction*" (*T* 1.3.6.4),

"the next question is, whether experience produces the idea [i.e. expectation of *B*] by means of the understanding or imagination; whether we are determin'd by reason to make the transition, or by a certain association and relation of perceptions?"

Hume will now argue that reason (i.e. the understanding) cannot ground this inference.

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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.
- Such learning from experience takes for granted 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?

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UP in the Enquiry

- In the *Enquiry* UP is less explicitly stated:
 - "all our experimental [experiential] conclusions proceed upon the supposition, that the future will be conformable to the past". (E 4.19)
 - No suggestion of conditionality here (likewise E 5.2: "in all reasonings from experience, there is a step taken by the mind" corresponding to UP).
 - Vaguer than original *Treatise* UP, and so more plausible: we expect the future to "resemble" (E 4.21) the past, but not copy exactly.

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Can UP be Founded on Argument?

After stating UP in the *Treatise*, Hume immediately continues:

"In order therefore to clear up this matter, let us consider all the arguments, upon which such a proposition may be suppos'd to be founded; and as these must be deriv'd either from *knowledge* or *probability*, let us cast our eye on each of these degrees of evidence, and see whether they afford any just conclusion of this nature." (*T* 1.3.6.4)

By knowledge, Hume means demonstration, as becomes evident in the next sentence.

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UP: The Uniformity Principle

- Hume then focuses on the principle (UP) presupposed by such extrapolation:
 - "If reason determin'd us, it wou'd proceed upon that principle, that instances of which we have had no experience, must resemble those of which we have had experience, and that the course of nature continues always uniformly the same." (T 1.3.6.4)
 - This seems conditional: IF reason is involved,
 THEN the inference must be based on this principle.
 - Elsewhere, it's unconditional: "probability is founded on the presumption of a resemblance ..." (T 1.3.6.7)

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The Role of the Uniformity Principle

- Hume need not be suggesting that we think of UP explicitly when making inductive inferences (and T 1.3.8.13 says we mostly don't: such inferences are typically immediate and unreflective).
- Rather, in making an inductive inference, we manifest the assumption of UP:
 - Inferring from observed to unobserved is ipso facto treating "the past [as a] rule for the future" (E 4.21)
 - Hence the question arises: can this assumption of UP be founded on reason, or is there some other explanation for why we make it?

1

Demonstrative and Probable

- A Lockean distinction:
 - In <u>demonstrative</u> reasoning, each link in the inferential chain is "intuitively" certain (hence = "deductive" in the modern non-formal sense).
 - In <u>probable</u> reasoning, some links are merely probable (hence = "inductive" in a loose sense).
- Hume takes over Locke's distinction
 - But in the Enquiry he also calls demonstration "reasoning concerning relations of ideas" (E 4.18),
 - and probable reasoning becomes "moral reasoning" or "reasoning concerning matter of fact".

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Must "Demonstration" Be A Priori?

- Hume repeatedly says that no matter of fact is demonstrable (e.g. T 1.3.7.3, A 18, E 4.2, 12.28). But this does not prevent a matter of fact being the conclusion of a demonstrative argument.
- Suppose we have a deductively valid argument from premises P_1 , P_2 , and P_3 to conclusion C. Since the argumentive links are intuitive and not dependent on experience, causal relations etc., Hume would have to count it as demonstrative.
- But if P_1 , P_2 , and P_3 are uncertain, then such an argument could not count as a demonstration of C. It only demonstrates C from P_1 , P_2 , and P_3 .

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But Isn't Demonstrative Reasoning Limited to Mathematics?

"There remain, therefore, algebra and arithemetic as the only sciences, in which we can carry on a chain of reasoning to any degree of intricacy, and yet preserve a perfect exactness and certainty." (*T* 1.3.1.5)

"It seems to me, that the only objects of the abstract sciences or of demonstration are quantity and number ..." (E 12.27)

- Hume's account of this limit is in terms of the relative clarity of mathematical and moral ideas.
- So if we want to find a posteriori demonstrative arguments of any complexity, we have to look to applied mathematics ...

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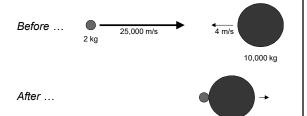
Hume on Applied Mathematics

Hume's most explicit discussion of "mixed mathematics" is in Enquiry Section 4:

"it is a law of motion, discovered by experience, that the moment or force of any body in motion [what we now call momentum] is in the compound ratio or proportion [i.e. is proportional to the product] of its solid contents [mass] and its velocity; and consequently, that a small force may remove the greatest obstacle ... if, by any contrivance ... we can encrease the velocity of that force, so as to make it an overmatch for its antagonist." (E 4.13)

■ The momentum of a body is equal to its mass multiplied by its velocity.

In any collision the total momentum of the colliding bodies (in any given direction) is conserved.



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"Geometry assists us in the application of this law ... but still the discovery of the law itself is owing merely to experience, and all the $\underline{\text{abstract reasonings}}$ in the world could never [give us any] knowledge of it." (E 4.13)

"Abstract reasonings" encompasses demonstrative mathematics, as in the Treatise:

"Mathematics ... are useful in all mechanical operations ... But 'tis not of themselves they have any influence. Abstract or demonstrative reasoning ... never influences any of our actions, but only as it directs our judgment concerning causes and effects." (72.3.3.2)

■ So it is very clear that Hume does not restrict "demonstrative" reasoning to the a priori.

Enquiry More Complete

■ At T 1.3.6.4, Hume assumes that demonstration and probable inference are the only possible foundations for UP. In the Enquiry, he first rules out sensation and intuition:

"there is no known connexion between the sensible qualities and the secret powers; and consequently, ... the mind is not led to form such a conclusion concerning their constant and regular conjunction, by any thing which it knows of their nature." (E 4.16)

"The connexion ... is not intuitive." (E 4.16)

The Four "Kinds of Evidence"

Hume's Letter from a Gentleman (1745) explains some background to his Treatise:

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

- "intuition" means self-evidence, "sensible" refers to sensory evidence.
- We have two forms of reasoning here, demonstrative and moral (i.e. probable, or reasoning concerning matter of fact [and existence]).

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■ Both forms of argument for UP are ruled out, *demonstration* by the Conceivability Principle:

"We can at least conceive a change in the course of nature; which ... proves, that such a change is not absolutely impossible [and thus yields] a refutation of any pretended demonstration against it." (*T* 1.3.6.5)

And probable argument by circularity:

"probability ... is founded on the presumption of a resemblance betwixt [observed and unobserved]; and therefore 'tis impossible this presumption can arise from probability." (*T* 1.3.6.7)

(At *T* 1.3.6.6-7 Hume needs the lemma that probable inference is causal and hence dependent on UP: diagram below shows duplication in *Treatise* version)

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Argument Summary

■ The logical structure of the argument can be represented in outline using the "founded on" relation (FO), together with:

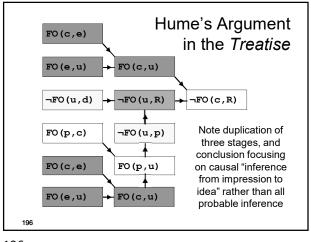
- p Probable inference (observed to unobserved)
- c Causal reasoning
- e (Reasoning from) Experience d Demonstration
- u Uniformity Principle
- i Intuition

R Reason

s Sensation

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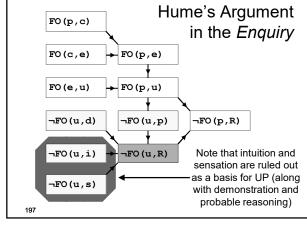
The "Sceptical" Conclusion

"even after experience has inform'd us of [causal] constant conjunction, 'tis impossible for us to satisfy ourselves by our reason, why we shou'd extend that experience beyond those particular instances, which have fallen under our observation." (T 1.3.6.11, cf. 1.3.12.20)

"even after we have experience of the operations of cause and effect, our conclusions from that experience are *not* founded on reasoning, or any process of the understanding" (*E* 4.15)

"in all reasonings from experience, there is a step taken by the mind, which is not supported by any argument or process of the understanding" (E 5.2)

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Interpreting Hume's Conclusion

- Extrapolation from observed to unobserved is a "step taken by the mind, which is not supported by any argument or process of the understanding".
- What is this ruling out as the basis of that step?
 - A priori demonstration? (Beauchamp et al.)
 - Lockean stepwise reasoning? (Owen)
 - Non-associative reasoning? (Loeb)
 - Some process of *ratiocination*, i.e. demonstrative or probable reasoning? (Garrett)
 - Some cognitive process, based on evidence of sense, intuition, demonstration or probability? (Millican)

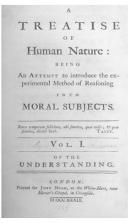
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4(b)

Custom and Hume's Theory of Belief



Hume's Alternative Explanation

Epistemology, or Cognitive Science?

A related question is whether Hume views his

■ The plausible answer here is: "both!":

discussion of induction, and its upshot, as being

psychological (concerning how our mind works).

epistemological (concerning reasons for belief) or

- Hume draws conclusions about how our mind works

in making inductive inferences (as we shall see).

- But his argument works by ruling out the competing

the basis of having good evidence for it. So it has

potential sceptical implications, as Hume explicitly

recognises in the Enquiry (but not in the Treatise).

hypothesis that we suppose continuing uniformity on

■ Reason can't explain inductive inference; so instead, it must arise from associative principles of the imagination:

"When the mind, therefore, passes from the idea or impression of one object [the cause *A*] to the idea or belief of another [the effect *B*], it is not determin'd by reason, but by certain principles, which associate together the ideas of these objects, and unite them in the imagination." (*T* 1.3.6.12)

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Custom and General Ideas

- Hume later calls this associative principle "custom" (*T* 1.3.7.6, 1.3.8.10, 1.3.8.12-14).
- His attitude to it is not negative:
 - "Custom, then, is the great guide of human life. It is that principle alone, which renders our experience useful to us ..." (*E* 5.6, cf. *A* 16)
- At *T* 1.3.6.14, Hume says this is essentially the same sort of custom as that which explained general ideas at *T* 1.1.7.7 ff.

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"Of the nature of the idea or belief"

■ Recall the agenda set at *T* 1.3.5.1:

"Here therefore we have three things to explain, viz. *First*, The original impression [*T* 1.3.5]. *Secondly*, The transition to the idea of the connected cause or effect [*T* 1.3.6]. *Thirdly*, The nature and qualities of that idea."

Accordingly, T 1.3.7 – "Of the nature of the idea or belief" – focuses on the idea [of the effect B] that we infer from the impression [of the cause A] in causal inference.

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An Idea Associated with an Impression

■ Since all belief about the unobserved arises from causal inference (*T* 1.3.2.3, 1.3.6.7), and causal inference moves "from the impression to the idea",

"we may establish this as one part of the definition of an opinion or belief, that 'tis an idea related to or associated with a present impression" (T 1.3.6.15)

Hume now goes on to investigate the nature of the associated idea.

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"a new question unthought of by philosophers" (A 17)

- Hume finds himself asking a profound question: "Wherein consists the difference betwixt incredulity and belief?" (T 1.3.7.3).
- This anticipates Frege:

"two things must be distinguished in an indicative sentence: the content ... and the assertion. The former is the thought ... it is possible to express the thought without laying it down as true." (1918, p. 21).

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A Manner of Conception

- *T* 1.2.6.4 argued that we have no separate idea of existence; so that can't make the difference between belief and unbelief, and nor does any other idea (*T* 1.3.7.2).
- If I believe proposition *P*, and you don't, the same ideas must be involved, or it wouldn't be the same proposition (*T* 1.3.7.3-4).
- So the difference must lie in the manner of conception, or force and vivacity (T 1.3.7.5).

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The Definition of Belief

■ The initial sketch of belief as

"an idea related to or associated with a present impression" (T 1.3.6.15)

can now be filled out (taking "lively" as a synonym for "forceful and vivacious"):

"An opinion, therefore, or belief may be most accurately defin'ed, A LIVELY IDEA RELATED TO OR ASSOCIATED WITH A PRESENT IMPRESSION." (*T* 1.3.7.5)

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"Of the causes of belief"

- *Treatise* 1.3.8 draws a natural conclusion from two of Hume's "discoveries":
 - T 1.3.5.3 concluded that causal reasoning has to start from an "impression" of the senses or memory, distinguished from mere ideas of the imagination by their "force and vivacity". This constitutes their "belief or assent" (T 1.3.5.7).
 - T 1.3.7.5 concluded that something inferred by causal inference becomes a *belief* in virtue of its force and vivacity.

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The Hydraulic Theory of Belief

"I wou'd willingly establish it as a general maxim in the science of human nature, that when any impression becomes present to us, it not only transports the mind to such ideas as are related to it, but likewise communicates to them a share of its force and vivacity." (T 1.3.8.2)

■ The remainder of *T* 1.3.8 gives various "experiments" to illustrate that the three associational relations also convey force and vivacity to the associated ideas, confirming this as a general phenomenon of human nature.

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A Hydraulic Theory of Probability

■ Suppose I throw a die ...

"When ... the thought is determin'd by the causes to consider the dye as falling and turning up one of its sides, the chances present all these sides as equal, and make us consider every one of them, one after another, as alike probable ... The determination of the thought is common to all; but no more of its force falls to the share of any one, than what is suitable to its proportion with the rest. 'Tis after this manner the original impulse, and consequently the vivacity of thought, arising from the causes, is divided and split in pieces by the intermingled chances. (*T* 1.3.11.12)

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Symptoms of Unease

■ In a paragraph added in the 1740 Appendix, Hume expresses discomfort with his account:

"An idea assented to *feels* different from a fictitious idea ... And this different feeling I endeavour to explain by calling it a superior *force*, or *vivacity*, or *solidity*, or *firmness*, or *steadiness*. ... 'tis impossible to explain perfectly this feeling or manner of conception. We may make use of words, that express something near it. But its true and proper name is *belief*, which is a term than every one sufficiently understands ..." (*T* 1.3.7.7)

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"Nothing But a Species of Sensation"

But the revolutionary significance of the theory remains, by contrast with what went before:

"Thus all probable reasoning is nothing but a species of sensation. ... When I am convinc'd of any principle, 'tis only an idea, which strikes more strongly upon me. When I give the preference to one set of arguments above another, I do nothing but decide from my feeling concerning the superiority of their influence." (*T* 1.3.8.12)

"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" (£ 5.8)

Doubts about "Force and Vivacity"

- This isn't entirely satisfactory:
 - A fictional story can be much more "forceful and vivacious" than a dull historical account.
 - "Force and vivacity" isn't a separate impression, so how does it fit into Hume's theory of ideas?
 - If it's part of the ideas believed, then how can we distinguish between the belief in a dull red door and the imagination of a bright red door?
 - "Manner of conception" suggests an attitudinal change, rather than a change in the ideas.

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Abandoning (Some of) the Theory

■ In the *Enquiry*, Hume does not *define* belief, and he seems to retreat from the hydraulic theory:

"Were we to attempt a *definition* of this sentiment, we should, perhaps, find it ... impossible ... Belief is the true and proper name of this feeling; ... It may not, however, be improper to attempt a *description* of this sentiment; ... I say then, that belief is nothing but a more vivid, lively, forcible, firm, steady conception of an object, than what the imagination alone is ever able to attain." (*E* 5.12)

Probable belief, as in the case of a die, arises from "an inexplicable contrivance of nature" (E 6.3).

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The Rejected Paradigm: Locke on Reason as *Perception*

"Inference ... consists in nothing but the Perception of the connexion there is between the Ideas, in each step of the deduction, whereby the Mind comes to see, either the certain Agreement or Disagreement of any two Ideas, as in Demonstration, in which it arrives at Knowledge; or their probable connexion, on which it gives or with-holds its Assent, as in Opinion. ... For as Reason perceives the necessary, and indubitable connexion of all the Ideas or Proofs one to another, in each step of any Demonstration that produces Knowledge; so it likewise perceives the probable connexion of all the Ideas or Proofs one to another, in every step of a Discourse, to which it will think Assent due. ..." (Essay IV xvii 2).

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David Hume, 1711-1776



5. Probability and the Idea of Causal Necessity

Peter Millican Hertford College, Oxford

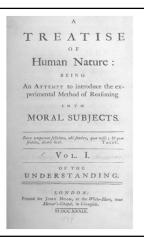
From Last Time ...

- In *Treatise* 1.3.2, Hume had (provisionally) identified the components of the idea of causation as contiguity, priority in time (of A to B), and necessary connexion (see especially T 1.3.2.11).
- At T 1.3.6.3, he identifies constant conjunction (i.e. regular succession) as the basis of our ascription of necessary connexion.
- Then in 1.3.6, he argues that causal reasoning is founded on *custom*; at 1.3.7.5 he defines *belief*, and in 1.3.8.2 he gives his hydraulic theory (with transfer of force and vivacity causing belief).

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5(a)

Some Highlights from Treatise 1.3.9-13



Treatise 1.3.9: "Of the effects of other relations and other habits"

- §2: causation is not the only associative relation that conveys force and vivacity to a related idea: resemblance and contiguity do too (cf. T 1.1.4.1). Why does only causation generate belief?
- Hume proposes a neat associative answer:
 - §3-4: causal inference enables us to construct a system of realities that we combine with the realities that we perceive or remember.
 - §6-7: resemblance and contiguity lead our minds capriciously in various directions; causation presents objects that "are fixt and unalterable" (quotes follow).

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Resemblance and Contiguity

"There is no manner of necessity for the mind to feign any resembling and contiguous objects; and if it feigns such, there is as little necessity for it always to confine itself to the same, without any difference or variation. And indeed such a fiction is founded on so little reason, that nothing but pure caprice can determine the mind to form it; and that principle being fluctuating and uncertain, 'tis impossible it can ever operate with any considerable degree of force and constancy. The mind forsees and anticipates the change; and even from the very first instant feels the looseness of its actions, and the weak hold it has of its objects." (T 1.3.9.6)

"The relation of cause and effect

- ... has all the opposite advantages. The objects it presents are fixt and unalterable. The impressions of the memory never change in any considerable degree; and each impression draws along with it a precise idea, which takes its place in the imagination, as something solid and real, certain and invariable. The thought is always determin'd to pass from the impression to the idea, and from that particular impression to that particular idea, without any choice or hesitation.'
- Causal inference focuses our thought towards one particular idea, thus avoiding dissipation of the force and vivacity transfer, and resulting in belief.

Religion and the Imagination

- *T* 1.3.8.4 The "mummeries" of Roman Catholicism enhance belief in saints (etc.) by perception of statues and associational *resemblance*.
- 7 1.3.8.6 Relics have a similar effect, associated to saints through *causation*.
- T 1.3.9.9 Contiguity enhances the belief of pilgrims to Mecca or the Holy Land.
- 7 1.3.9.12 Credulity of others' testimony is based in custom (cf. Enquiry 10, "Of Miracles").
- T 1.3.9.13-15 Lack of resemblance undermines belief in the afterlife; "in matters of religion men take a pleasure in being terrify'd", showing it's not really believed.

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§1: "what the vulgar call chance is nothing but a secret and conceal'd cause". Hume is a determinist.

T 1.3.12: "Probability of Causes"

- §2: Probable judgement is derived from custom, i.e. "the association of ideas to a present impression". Strength of association builds up gradually, even if A is always followed by B.
- §§8-12: The hydraulic theory again after inconstant experience, the force and vivacity of our inductive expectation (on seeing A) is divided between the ideas of the various experienced effects (B, C, D etc.) in proportion to their past observed frequencies.
- §25: Reasoning from analogy involves weakening of resemblance (rather than of the union, i.e. constancy).

T 1.3.11: "Probability of Chances"

- §2: Locke divides "human reason into knowedge and probability". But "One wou'd appear ridiculous, who wou'd say, that 'tis only probable the sun will rise to-morrow, or that all men must dye". So it fits better with common language if we talk of "probability" only in cases of genuine uncertainty (e.g. where the evidence is mixed), and use the word "proof" to talk of "those arguments, which are deriv'd from the relation of cause and effect, and which are entirely free from doubt and uncertainty".
- §§9-13: Gives the most detailed account of Hume's hydraulic theory of probabilistic judgement.

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■ If people find this theory hard to accept ...

"Let men be once fully perswaded of these two principles, That there is nothing in any object, consider'd in itself, which can afford us a reason for drawing a conclusion beyond it; and, That even after the observation of the frequent or constant conjunction of objects, we have no reason to draw any inference concerning any object beyond those of which we have had experience; I say, let men be once fully convinc'd of these two principles, and this will throw them so loose from all common systems, that they will make no difficulty of receiving any, which may appear the most extraordinary." (T 1.3.12.20)

Hume has by now noticed the dramatic sceptical impact of his argument concerning induction!

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Science: Seeking Hidden Causes

"The vulgar ... attribute the uncertainty of events to such an uncertainty in the causes, as makes them often fail of their usual influence, ... But philosophers observing, that almost in every part of nature there is contain'd a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find that 'tis at least possible the contrariety of events may not proceed from any contingency in the cause, but from the secret operation of contrary causes. This possibility is converted into certainty by farther observation, when they remark, that upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual hindrance and opposition. ... From the observation of several parallel instances, philosophers form a maxim, that the connexion betwixt all causes and effects is equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes."

(T 1.3.12.5; E 8.13 is almost verbatim)

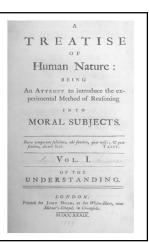
T 1.3.13: "Unphilosophical Probability"

- Some types of reasoning from "the same principles" (i.e. custom) are viewed with less respect:
 - §§1-2: Giving recent instances (which can be either observed causes [1] or effects [2]) more weight than remote instances, because they are more vivid in the memory;
 - §3: Fading of conviction through lengthy reasoning;
 - §7: "General rules" leading to PREJUDICE, e.g. continuing to believe "An *Irishman* cannot have wit, and a *Frenchman* cannot have solidity", even given clear counterexamples.
 - §§9-12: We can avoid such prejudice by using higher-level general rules (which are "attributed to our judgment; as being more extensive and constant") to counter our prejudices (which are attributed "to the imagination; as being more capricious and uncertain", T 1.3.13.11).

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5(b)

"Of the Idea of Necessary Connexion"



The Ideas of Cause and of Necessity

- Now at last Hume returns to his quest for the crucial component of our idea of causation, a component that he calls the idea of "power", "necessity", or "necessary connexion".
- That it is an essential component is always clear:
 - "According to my definitions, necessity makes an essential part of causation" (*T* 2.3.1.18, cf. also 1.3.2.11, 1.3.6.3, 2.3.2.4).
 - "Necessity may be defined two ways, conformably to the two definitions of *cause*, of which it makes an essential part." (E 8.27, cf. 8.25)

2.

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Applying the Copy Principle

- Hume's Copy Principle (T 1.1.1.7) states that all simple ideas are copied from impressions. In T 1.3.14 he repeatedly refers back to this principle.
- The principle provides "a new microscope" (*E* 7.4) for investigating the nature of ideas, by finding the corresponding impressions.
- In Treatise 1.3.14, he accordingly sets out to identify the impression from which the idea of necessary connexion is copied.
- 1.3.14.1 summarises the argument to come ...

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"What is our idea of necessity, when we say that two objects are necessarily connected together. ... as we have no idea, that is not deriv'd from an impression, we must find some impression, that gives rise to this idea of necessity, if we assert we have really such an idea. ... finding that necessity is ... always ascrib'd to causes and effects, I turn my eye to two objects suppos'd to be plac'd in that relation; ... I immediately perceive, that they are contiguous in time and place, and that the object we call cause precedes the other we call effect. In no one instance can I go any farther, nor is it possible for me to discover any third relation betwixt these objects. I therefore enlarge my view to comprehend several instances; where I find like objects always existing in like relations of contiguity and succession. At first sight this seems to serve but little to my purpose. The reflection on several instances only repeats the same objects; and therefore can never give rise to a new idea. But upon farther enquiry I find, that the repetition is not in every particular the same, but produces a new impression, and by that means the idea, which I at present examine. For after a frequent repetition, I find, that upon the appearance of one of the objects, the mind is determin'd by custom to consider its usual attendant, and to consider it in a stronger light upon account of its relation to the first object. Tis this impression, then, or determination, which affords me the idea of necessity."

(T 1.3.14.1)

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Synonymy and Definition

Hume begins his quest for the impression:
"I begin with observing that the terms of efficacy,
accepts power force operate possessity connects

"I begin with observing that the terms of efficacy, agency, power, force, energy, necessity, connexion, and productive quality, are all nearly synonimous; and therefore 'tis an absurdity to employ any of them in defining the rest. By this observation we reject at once all the vulgar definitions, which philosophers have given of power and efficacy; and instead of searching for the idea in these definitions, must look for it in the impressions, from which it is originally deriv'd. If it be a compound idea, it must arise from compound impressions. If simple, from simple impressions." (T 1.3.14.4)

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Two Puzzles

- Why does Hume treat "efficacy", "power", "force", "energy", "necessity" etc. as virtual synonyms?
- Why, in his subsequent procedure of seeking for a single source impression, does he apparently assume that the idea of "necessary connexion" is simple, and hence cannot be explicitly defined? (This is made explicit at E 7.8 n. 12, which implies that the quest is for "a new, original, simple idea".)
- Suggested solution: Hume's interest lies in a single common element of the relevant ideas, what we might call the element of consequentiality.

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A Third Puzzle

■ If necessary connexion is a key component of our idea of cause (as Hume repeatedly insists), then how can anyone even believe that causes could be less than absolutely necessitating?

"The vulgar ... attribute the uncertainty of events to such an uncertainty in the causes as makes the latter often fail of their usual influence ..." (T 1.3.12.5, copied at E 8.13)

■ This too is explained if the key idea is not literal necessity, but rather consequentiality: a force, power or energy need not be compelling.

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"Power", or "Necessary Connexion"?

- In Treatise 1.3.14, Hume refers to the idea of "power" or "efficacy" around three times more often than he refers to the idea of "necessity" or "necessary connexion"!
- My suggestion makes the former more appropriate, so why emphasise the latter in the section's title, and when summing up?
- <u>Suggested explanation</u>: The most important application of the analysis of causation is to shed light on "liberty and necessity", the problem of free will (T 2.3.1-2, E 8).

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Refuting Locke and Malebranche

- Locke suggests we infer the existence of power as a means of explaining "new productions in matter". But "reason alone can never give rise to any original idea" (T 1.3.14.5).
- Malebranche is right to deny that "the secret force and energy of causes" can be found in bodies (T 1.3.14.7).
- But the Copy Principle refutes Malebranche's claim that we acquire the idea of an "active principle" from our idea of God (T 1.3.14.10).

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No Idea from Single Instances

- Powers cannot be found among the known or perceived properties of matter (T 1.3.14.7-11).
- Nor among the properties of mind (added in the Appendix of 1740, T 1.3.14.12, SB 632-3).
- We cannot find any *specific* impression of power in these various sources, hence they cannot possibly yield any general idea of power either (T 1.3.14.13; this draws on the theory of "general or abstract ideas" of T 1.1.7, as covered in the first lecture).

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Repeated Instances

- The actual source of the key impression is revealed when we turn to repeated instances of observed conjunctions of "objects". In these circumstances,
 - "... we immediately conceive a connexion betwixt them, and ... draw an inference from one to another. This multiplicity of resembling instances, therefore, constitutes the very essence of power or connexion, and is the source, from which the idea of it arises." (T 1.3.14.16)

An Internal Impression

- Repeated instances supply no new impression from the objects; to find the elusive impression of power we must look inside ourselves to the habitual transition of the mind: the operation of custom. (At T 1.3.14.16-22 Hume runs over these points, trying to spell them out clearly.)
- Recall that *T* 1.3.6.3 anticipated this result:

"Perhaps 'twill appear in the end, that the necessary connexion depends on the inference, instead of the inference's depending on the necessary connexion."

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Is the Impression a Feeling?

"This connexion ... which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression, from which we form the idea of power or necessary connexion." (*E* 7.28, cf. *T* 1.3.14.24, 29).

- Stroud (1977, pp. 85-6) takes the impression to be an undefinable "feeling of determination" that happens to accompany the operation of customary inference.
- But it's not obvious that *there is* such a feeling (cf. *T* 1.3.8.2, 13; 1.3.12.7). And even if there were, "No internal impression has an apparent energy, more than external objects" (*T* 1.3.14.12, cf. *E* 7.15 n. 13).

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■ An "impression" is needed to provide a *legitimate* source for the crucial idea via his Copy Principle (*T* 1.3.14.1, 6, 10, 11, 16, 20, 22), and Hume clearly expects to find one. "Determination of the mind" then turns out to be the only candidate:

"This determination is the only effect of the resemblance; and therefore must be [the source of our idea of] power or efficacy ... Necessity, then, is ... nothing but an internal impression of the mind, or a determination to carry our thoughts from one object to another." (*T* 1.3.14.20)

■ Might "determination" be alluding to the fixety and lack of "looseness" we feel in causal inference (*T* 1.3.9.6-7)? Perhaps, but lack of explicit reference to this, and Hume's later preference for the weaker term "transition" (*E* 7.28,30), suggest otherwise.

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Reflexive Awareness of Inference

- Besides, if we suppose that Hume was (even if only vaguely) thinking of "reflection" as giving access to internal monitoring of our mental activity (rather than literal feelings), we have a simpler solution based on consequentiality...
- Inference is genuinely consequential: "that inference of the understanding, which is the only connexion, that we can have any comprehension of" (E 8.25)
- Hume can then be taken fairly literally: the source of the idea is the reflexive awareness of making causal inference, and not a feeling.

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"Necessity is in the Mind, not in Objects"

- "Necessity, then, ... is nothing but an internal impression of the mind" (*T* 1.3.14.20);
- "necessity is something, that exists in the mind, not in objects" (T 1.3.14.22);
- "the necessity or power ... lies in the determination of the mind ... The efficacy or energy of causes is [not] plac'd in the causes themselves ...; but belongs entirely to the soul ... 'Tis here that the real power of causes is plac'd, along with their connexion and necessity. (*T* 1.3.14.23);
- "power and necessity ... are ... qualities of perceptions, not of objects, and are internally felt by the soul, and not perceiv'd externally in bodies" (*T* 1.3.14.24);
- See also *T* 1.4.7.5, 2.3.1.4, 2.3.1.6.

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Misunderstanding and Bias

- Hume is not saying that we perceive some kind of objective necessity within the operations of the mind, but not body (see T 1.3.14.29). Rather ...
- We find ourselves inferring from A to B, and this relation "in the mind" is all we can understand by "necessity" (whether in body or mind). We can't even make sense of anything more.
- There is a natural bias against this view: "the mind has a great propensity to spread itself on external objects, and to conjoin with them any internal impressions, which they occasion" (T 1.3.14.25).
- Hume is criticising this propensity, not endorsing it!

The Confused Vulgar Idea of Power

- Another common instance of "the same propensity" is our natural tendency to assign spatial location to our impressions of sounds and smells.
 - T 1.3.14.25 includes a footnote to 1.4.5.14, which says:
 "All this absurdity proceeds from our endeavouring to bestow a place on what is utterly incapable of it".
- In the *Enquiry*, Hume alludes to a similar projective tendency "to apply to external objects every internal sensation, which they occasion" (*E* 7.29 n. 17).
 - The same note also mentions "the sentiment of a nisus or endeavour" which "enters very much into" the vulgar idea of physical power (E 7.29 n. 17, cf. 7.15 n. 13).

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An Outrageous Conclusion ...

"But tho' this be the only reasonable account we can give of necessity ... I doubt not that my sentiments will be treated by many as extravagant and ridiculous. What! the efficacy of causes lie in the determination of the mind! As if causes did not operate entirely independent of the mind, and wou'd not continue their operation, even tho' there was no mind existent to contemplate them ... to remove [power] from all causes, and bestow it on a being, that is no ways related to the cause or effect, but by perceiving them, is a gross absurdity, and contrary to the most certain principles of human reason." (T 1.3.14.26)

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Objective Causes, in a Sense ...

"As to what may be said, that the operations of nature are independent of our thought and reasoning, I allow it; and accordingly have observ'd, that objects bear to each other the relations of contiguity and succession; that like objects may be observ'd in several instances to have like relations; and that all this is independent of, and antecedent to the operations of the understanding." (T 1.3.14.28)

■ So there is both an objective and a subjective side to our idea of power or necessity. Hume accordingly (if somewhat confusingly), proceeds to give two "definitions of cause".

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"There may two definitions be given of this relation, which are only different, by their presenting a different view of the same object ... We may define a CAUSE to be 'An object precedent and contiguous to another, and where all the objects resembling the former are plac'd in like relations of precedency and contiguity to those objects, which resemble the latter.' If this definition be esteem'd defective, because drawn from objects foreign to the cause, we may substitute this other definition in its place, viz. 'A CAUSE is an object precedent and contiguous to another, and so united with it, that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other.' Shou'd this definition also be rejected for the same reason, I know no other remedy.

(T1.3.14.31)

... Which Hume Defends!

"I can only reply to all these arguments, that the case is here much the same, as if a blind man shou'd pretend to find a great many absurdities in the supposition, that the colour of scarlet is not the same with the sound of a trumpet, nor light the same with solidity. If we really have no idea of a power or efficacy in any object, or of any real connexion betwixt causes and effects, 'twill be to little purpose to prove, that an efficacy is necessary in all operations. We do not understand our own meaning in talking so, but ignorantly confound ideas, which are entirely distinct from each other." (T 1.3.14.27)

Two "Definitions of Cause"

- Hume's discussions of "the idea of necessary connexion" both famously culminate with his paired definitions (at T 1.3.14.31 and E 7.29).
 - The first definition is based on regular succession of the "cause" A followed by "effect" B (plus contiguity in the Treatise).
 - The second definition is based on the mind's tendency to infer B from A.
- Note the corresponding definitions of necessity at T 2.3.2.4 (cf. T 2.3.1.4) and E 8.27 (cf. E 8.5).
 - Significantly, these are given a quite separate heading in Hume's own index of the Enquiry.

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"Defective" Definitions?

- The passage just quoted seems to acknowledge what might be thought a defect (an "inconvenience", says E 7.29) in Hume's definitions, because they are "drawn from objects foreign to the cause". In other words, A and B can only be understood as cause and effect by reference to other As and Bs: we cannot find, within one A itself, what makes it a cause.
 - Galen Strawson assumes that Hume is here expressing doubts about the adequacy of his definition of causal necessity. But Hume doesn't even hint at any such problem with his two definitions of necessity (noted just previously), and as we shall see, relies on those definitions to resolve the issue of liberty and necessity.

But the Definitions Aren't Coextensive!

- Hume is clearly aware that our inferences don't always correspond with genuine constant conjunctions. So it seems rather unlikely that he intends both definitions to specify necessary and sufficient conditions.
 - His "genetic" conception of meaning suggests a different view. The meaning of causal necessity can only be understood through the impression from which its idea is derived (perhaps most charitably interpreted as reflexive awareness of our own inferential behaviour in response to observed constant conjunctions).
 - The second definition, accordingly, can be seen as specifying a paradigm case in which we experience this impression and thus can acquire the idea.

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- Having once acquired the idea, we need not restrict its application only to the manifest sorts of constant conjunctions that naturally generate it.
- Hume clearly thinks that we can and should go beyond these natural cases by systematising our application of the idea. For he immediately goes on to propose "Rules by which to judge of causes and effects" (T 1.3.15), and he has already advocated:
 - Searching for hidden causes (T 1.3.12.5);
 - Working out high-level general rules (T 1.3.13.11-12).
- Accordingly the two definitions can be seen as complementary rather than conflicting. The second definition identifies the relevant idea; the first summarises the criteria for applying it.

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A Significant Parallel in Hume's Treatment of Virtue or Personal Merit

- In the second Enquiry of 1751, Hume gives two definitions of virtue or personal merit, one "objective" and one "subjective":
 - "PERSONAL MERIT consists altogether in the possession of mental qualities, useful or agreeable to the person himself or to others. ... The preceding ... definition ..." (M 9.1, 9.12)
 - "[My] hypothesis ... defines virtue to be whatever mental action or quality gives to a spectator the pleasing sentiment of approbation; ..."

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(M Appendix 1.10)

Correcting the Scope of the Idea of Virtue

"every quality, which is useful or agreeable to ourselves or others, is ... allowed to be a part of personal merit [and] no other will ever be received, where men judge of things by their natural, unprejudiced reason ... Celibacy, fasting, penance, mortification, self-denial, humility, silence, solitude, and the whole train of monkish virtues; ... are ... every where rejected by men of sense, ... because they serve to no manner of purpose; neither advance a man's fortune in the world [not useful to self], nor render him a more valuable member of society [nor others]; neither qualify him for the entertainment of company [not agreeable to others], nor encrease his power of self-enjoyment [nor self]. We observe, on the contrary, that they cross all these desirable ends; stupify the understanding and harden the heart, obscure the fancy and sour the temper. We justly, therefore, transfer them to the opposite column, and place them in the catalogue of vices" (M 9.3)

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Corollaries of the Definitions

- "All causes are of the same kind ... For the same reason we must reject the distinction betwixt cause and occasion ... If constant conjunction be imply'd in what we call occasion, 'tis a real cause. If not, 'tis no relation at all ..." (T 1.3.14.32) So what Malebranche thought of as mere occasional causes are real causes.
- "there is but one kind of necessity ... and ... the common distinction betwixt moral and physical necessity is without any foundation in nature." (T 1.3.14.33)
- It is now easy to see why the Causal Maxim of T 1.3.3 is not intuitively or demonstratively certain. (T 1.3.14.35)
- "we can never have reason to believe that any object exists, of which we cannot form an idea." (T 1.3.14.36)

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The Rules of Treatise 1.3.15

- Immediately after presenting the two definitions and their corollaries, Hume continues to seem thoroughly objectivist about causes:
 - "Since therefore 'tis possible for all objects to become causes or effects to each other, it may be proper to fix some general rules, by which we may know when they really are so." (T 1.3.15.1)
 - "[Phenomena] in nature [are] compounded and modify'd by so many different circumstances, that ... we must carefully separate whatever is superfluous, and enquire by new experiments, if every particular circumstance of the first experiment was essential to it". (7 1.3.15.11)

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- "1. The cause and effect must be contiguous in space and time.
- 2. The cause must be prior to the effect
- 3. There must be a constant union betwixt the cause and effect. 'Tis chiefly this quality, that constitutes the relation.
- 4. The same cause always produces the same effect, and the same effect never arises but from the same cause. ..
- 5. ... where several different objects produce the same effect, it must be by means of some quality, \dots common amongst them \dots
- 6. ... The difference in the effects of two resembling objects must proceed from that particular, in which they differ. .
- 7. When any object encreases or diminishes with the encrease or diminution of its cause, 'tis to be regarded as a compounded effect, deriv'd from the union of the several different effects, which arise from the several different parts of the cause.'
- 8. ... an object, which exists for any time in its full perfection without any effect, is not the sole cause of that effect ...

(T 1.3.15.3-10)

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Two Improvements in the *Enquiry*

- The "rules by which to judge of causes and effects" of T 1.3.15 crudely treat all causation as involving conjoined pairs of discrete sequential events.
 - The first Enquiry significantly improves on this, by accommodating quantitative forces and powers.
- The text of the Treatise leaves an unresolved tension between Hume's apparently general view of causation as thoroughly objective, and his extravagant subjectivism (e.g. at T 1.3.14.20-24).

Rejection of Subjectivism in the *Enquiry*

twice suggests that causal necessity is subjective:

"The necessity of any action, whether of matter or of

b) "When we say, therefore, that one object is connected

with another, we mean only, that they have acquired a

connexion in our thought, and give rise to this inference,

by which they become proofs of each other's existence

mind, is not, properly speaking, a quality in the agent, but in any thinking or intelligent being, who may consider

the action; and it consists chiefly in the determination of his thoughts to infer the existence of that action from

By contrast with the Treatise, the Enquiry only

some preceding objects" (E 8.22 n. 18)

(E7.28)

 The Enquiry resolves this, by removing or cancelling the extravagant subjectivism.

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Quantitative Powers in the *Enquiry*

- In the first Enquiry, Hume fully recognises applied mathematics, and that it involves forces, theoretical entities that can be quantified, and which enter into equations describing objects' behaviour:
 - "it is a law of motion, discovered by experience, that the moment or force of any body in motion is in the compound ratio or proportion of its solid contents and its velocity; ..." (E 4.13)
 - Two footnotes in Enquiry 7 (7.25 n.16, 7.29 n.17) help to bring such quantitative "powers" within the scope of Hume's theory of causation, generalising beyond constant conjunction and the rules of Treatise 1.3.15.

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- a) E 8.22 n. 18 is in a footnote largely copied verbatim from T 2.3.2.2, which aims to explain "the prevalence of the doctrine of liberty". And it clearly describes necessity in terms of potential (not actual) inference:
 - "... The necessity of any action, whether of matter or of mind, is not, properly speaking, a quality in the agent, but in any thinking or intelligent being, who may consider the action; and it consists chiefly in the determination of his thoughts to infer the existence of that action from some preceding objects; ... however we may imagine we feel a liberty within ourselves, a spectator can commonly infer our actions from our motives and character; and even where he cannot, he concludes in general, that he might, were he perfectly acquainted with every circumstance of our situation and temper, and the most secret springs of our complexion and disposition. Now this is the very essence of necessity, according to the foregoing doctrine.

- b) E 7.28 seems subjectivist, but it occurs in the paragraph immediately before the two definitions of cause. As soon as the definitions have been presented, an alternative objectivist understanding becomes available:
 - "When we say, therefore, that one object is connected with another, we mean only, that they have acquired a connexion in our thought, and give rise to this inference, ..." (E 7.28)

<E 7.29: Two definitions of cause:

■ We say, for instance, that the vibration of this string is the cause of this particular sound. But what do we mean by that affirmation? We either mean, that this vibration is followed by this sound, and that all similar vibrations have been followed by similar sounds: Or, that this vibration is followed by this sound, and that upon the appearance of one, the mind anticipates the senses, and forms immediately an idea of the other. We may consider the relation of cause and effect in either of these two lights; but beyond these, we have no idea of it. (E 7.29)

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6. Causation, Interpretation, and on to Sceptical Problems

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From Last Time ...

- We have looked in some detail of Hume's search for the source of the idea of causal necessity, which largely structures Part 3 of *Treatise* Book 1, and culminates in *T* 1.3.14 (the longest section).
- We noted some tensions in Hume's texts, and explored some ways of resolving them so as to interpret him as holding a relatively plausible view.
- We saw that Hume seems clearly to be a believer in causes (as he understands them): he identifies what he takes to be a legitimate impression for the crucial idea, and advocates causal investigation.

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Causation's Significance for Hume

- Only causation can ground inference to the unobserved, which is key to the *Treatise* project.
- Treatise 1.3, the longest part of the entire work, is devoted to causation and causal reasoning, and is framed by the analysis of causation.
- Other topics discussed there include the Causal Maxim, belief, probability, rationality, rules of scientific enquiry, and the reason of animals.
- Hume's analysis of causation impacts crucially on his later treatment of materialism (in T 1.4.5) and "liberty and necessity" (in T 2.3.1-2).

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Causation: Interpretative Issues

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The "New Hume"

- Some scholars (most influentially John Wright, Galen Strawson, and Edward Craig) argue that Hume believes we have a deeper conception of causal necessity, going beyond what is yielded by the impression-copied idea and the two definitions.
 - Strawson calls this supposed deeper notion "Causation" (with a capital "C").
 - Hence we shall call this position "Causal Realism".
- But what can this supposed deeper conception be, when it cannot involve a bona fide idea (as there is no impression that such an idea could copy)?

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The Alleged AP Conception

- As interpreted in the "New" way, Hume thinks that genuine causation in things must involve an absolute necessity which, if only we knew it, would license a priori inference of the effect, with complete certainty. Strawson calls this the "AP" (a priori) Property.
 - One obvious objection is that this conflicts with Hume's oft-repeated Conceivability Principle that "whatever we conceive is possible, at least in a metaphysical sense" (A 11), because if there were a "hidden" absolute necessity connecting A with B, then the fact that we can conceive of A not being followed by B could not imply that this is a genuine metaphysical possibility. (Strawson, strangely, ignores this problem!)

- The only significant evidence of Hume's endorsing an AP-style conception in the *Treatise* is:
 - "[To] be able to conceive ... power in some particular being, ... We must distinctly and particularly conceive the connexion betwixt the cause and effect, and be able to pronounce, from a simple view of the one, that it must be follow'd or preceded by the other. This is the true manner of conceiving a particular power in a particular body: ..."
 (T1 3 14 13)
- New Humeans put more emphasis on the Enquiry, which argues repeatedly (e.g. E 7.7, 11-14, 17-19) that perceptions whether external or internal can yield no impression of necessary connexion, because if they could, this would enable us to infer the effect a priori and with certainty, which we cannot do.

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In a different approach, Wright (1990, pp. 94-5; 2009, pp. 124-6) highlights texts suggesting that Hume takes our thinking about causation to involve an apparent inconceivability of cause without effect:

"Tis natural for men, in their common and careless way of thinking, to imagine they perceive a connexion betwixt such objects as they have constantly found united together; and because custom has render'd it difficult to separate the ideas, they are apt to fancy such a separation to be in itself impossible and absurd." (*T* 1.4.3.9)

But Hume's next sentence says that "philosophers ... Immediately perceive the falshood of these vulgar sentiments", and he never *endorses* this as a route to any legitimate notion of causal power.

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Kames's Objection, and a Footnote

- Kames (1751) also noted these references to powers in the *Enquiry*, and quoted *E* 4.16 against Hume, as evidence of *inconsistency*.
- We know that they swapped manuscripts prior to publication. In 1750 Hume added a footnote to the very next sentence in *E* 4.16, countering any such hint of inconsistency:
 - "* The word, Power, is here used in a loose and popular sense. The more accurate explication of it would give additional evidence to this argument. See Sect. 7."

- But this move occurs only in the first part of Hume's argument, before he has considered repetition (and thus identified the genuine impression of necessity).
 - So Hume's use of the criterion here is easily explained, given his standard assumption (e.g. *T* 1.3.6.1, *A* 11, *E* 4.18) that any legitimate inference *prior to experience* from observation of a single *A* must yield certainty.
 - The New Humean position itself leaves unexplained why Hume later accepts an impression of necessary connexion (i.e. the "customary transition of the imagination") that clearly fails to satisfy the AP criterion (Craig 2002, p. 221 calls this "curious" and "careless").
 - Besides, Hume never suggests that the AP requirement is satisfied, so on the "New" view he would have to be a causal sceptic (which we have seen he isn't).

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References to Secret Powers

- Strawson takes Hume's references to "secret powers" to involve (capital "C") Causation:
 - "the ultimate cause of any natural operation ... that power, which produces any ... effect in the universe ... the causes of these general causes ... ultimate springs and principles" (E 4.12);
 - "the secret powers [of bodies] ... those powers and principles on which the influence of ... objects entirely depends" (E 4.16);
 - "those powers and forces, on which this regular course and succession of objects totally depends" (E 5.22);

Quantitative Forces

- As we saw in the previous lecture, in the Enquiry Hume is clear that applied mathematics involves quantifiable forces, which enter into equations describing objects' behaviour (e.g. E 4.12-13).
- "Force" is in the same family as "power" etc.
- This, rather than (capital "C") Causal Realism, explains the prominent "power" language there.
- E 7.25n and E 7.29n both suggest an attitude to such forces corresponding exactly to the spirit of Enquiry 7: understanding them in terms of functional relationships between "cause" and "effect".

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The Most Serious Objection to the "New Hume"

- On the "New" reading, Hume understands genuine causation, and causal necessity, to involve more than satisfaction of his paired definitions.
- But if we look at how Hume himself applies his paired definitions later in the *Treatise* and *Enquiry* in the corollaries of *T* 1.3.14, at the end of *T* 1.4.5, and especially the discussions of "liberty and necessity" (*T* 2.3.1-2; *E* 8), he is clearly relying on the claim that the two definitions do in fact capture what genuine causation, and causal necessity, are.

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Hume's Semantic Argument

- Hume's entire argument is structured around the Copy Principle quest for an impression.
- The Principle is a tool for deciding questions of meaning (*T* 1.1.6.1, *A* 7, *E* 2.9).
- He aims to find causal terms' *meaning* or *significance* (*T* 1.3.14.14 & 27, *A* 26, *E* 7.3, 26 & 28).
- When the *subjective* impression is identified, the apparently "paradoxical" implication is embraced.
- The discussion culminates with two *definitions* of "cause", and conclusions are drawn that apparently treat these as genuine definitions.

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Hume's Use of his Two Definitions

- We have seen the corollaries at *T* 1.3.14.32-36.
- If we search for subsequent paragraphs in the *Treatise* that mention the definition of "cause", "power" or "necessity", we find just three, at *T* 1.4.5.31, 2.3.1.18, and 2.3.2.4.
- If we search instead for "constant conjunction" or "constant union", we find mainly T 1.4.5.30-33, 2.3.1.416, and 2.3.2.4 (T 1.4.1.2 and 1.4.3.2 also mention "constant union" briefly).
- Similar searches in the Enquiry point very clearly to Section 8 (10.5 is the only other).

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"the ... advocates for free-will [of a sort Hume opposes] must allow this union and inference with regard to human actions. They will only deny, that this makes the whole of necessity. But then they must shew, that we have an idea of something else in the actions of matter; which, according to the foregoing reasoning, is impossible." (A 34, cf. T 2.3.1.3-18, T 2.3.2.4, E 8.4-22, E 8.27)

Hume is arguing here against a (capital "C") Causal Realist, who denies that satisfaction of his paired definitions "makes the whole of necessity", and who accordingly believes that we are able to consider that there is "something else [to necessity] in the actions of matter".

Causation and the Mind

- Recall from lecture 1 that Hume is especially keen to establish causal necessity in respect of the mind:
 - In principle, matter could be the cause of thought (T 1.4.5, "Of the Immateriality of the Soul")
 - The "doctrine of necessity" applies as much to the mental world as to the physical world (T 2.3.1-2 and E 8 "Of Liberty and Necessity")
- Both arguments crucially turn on the claim that there is nothing to causal necessity beyond the two definitions. This is very clear in the following pithy summary from the Abstract:

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"A New Definition of Necessity"

Even more explicitly than in "Of the Immateriality of the Soul", Hume portrays his argument about "liberty and necessity" as turning crucially on his new understanding of necessity:

"Our author pretends, that this reasoning puts the whole controversy in a new light, by giving a new definition of necessity." (A 34)

■ This requires that his definitions be understood as specifying "the very essence of necessity", an emphatic phrase used four times in this context (*T* 2.3.1.10, 2.3.2.2; *E* 8.22 n. 18, 8.25 n. 19).

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Is Hume a "Projectivist"?

- "Tis a common observation, that the mind has a great propensity to spread itself on external objects, and to conjoin with them any internal impressions, which they occasion, ... the same propensity is the reason, why we suppose necessity and power to lie in the objects ..., not in our mind, ..." (T 1.3.14.25)
- "Thus the distinct boundaries and offices of reason and of taste are easily ascertained. ... The one discovers objects as they really stand in nature, without addition or diminution: The other has a productive faculty, and gilding or staining all natural objects with the colours, borrowed from internal sentiment, raises, in a manner, a new creation." (M App 1.21)

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- But Hume clearly thinks of causal projectivism as an error that explains why we are naturally biased against his [correct] theory.
- And he distinguishes <u>reason</u> from <u>taste</u>:
 - reason presents objects "without addition or diminution", is "cool and disengaged", and is the domain of truth and falsehood (M App 1.21);
 - taste "gilds or stains" with "colours, borrowed from internal sentiment", and "as it gives pleasure or pain, ... becomes a motive to action" (M App 1.21).
- Crucially, causal judgements are on the side of reason; "gilding or staining" distinguishes judgements of taste from causal judgements.

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Empiricism and Projectivism

- Hume's Copy Principle obliges him to seek an "impression of reflection" to ground any idea that is not straightforwardly sensory:
 - Necessary connexion is grounded in (something like) the awareness of inductive inference;
 - Moral notions are grounded in generalised approbation and disapprobation;
 - Beauty is grounded in "a peculiar delight and satisfaction"; deformity in a corresponding pain.
- Thus the ascription of these ideas inevitably involves some element of "projection".

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A Positive View of Causation

■ Hume uses his account of causation not for sceptical purposes, but to justify ascribing it:

"all objects, which are found to be constantly conjoin'd, are upon that account only to be regarded as causes and effects. ... the constant conjunction of objects constitutes the very essence of cause and effect ... (T 1.4.5.32, emphasis added)

"two particulars [are] essential to necessity, viz. the constant union and the inference of the mind ... wherever we discover these we must acknowledge a necessity." (T2.3.1.4)

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"Of the Reason of Animals"

- Significantly, three parts of the Treatise (1.3, 2.1, and 2.2) end with sections comparing humans with animals (and the last paragraph of T 2.3.9 says the similarity regarding "the will and direct passions" is too "evident" to need discussing).
 - This is a major aspect of what is called Hume's "naturalism" (more precisely "biological naturalism").
 - It is noteworthy that over a century later, Charles Darwin was reading Hume "on the reason of animals" (Enquiry 9) around the time that he came up with the theory of natural selection.

■ Hume's main point in *T* 1.3.16 is to argue in favour of his "system concerning the nature of the understanding" (§4) by showing that "it will equally account for the reasonings of beasts".

"let any philosopher make a trial, and endeavour to explain that act of the mind, which we call belief, and give an account of the principles, from which it is deriv'd, independent of the influence of custom on the imagination, and let his hypothesis be equally applicable to beasts as to the human species; and after he has done this, I promise to embrace his opinion." (§8)

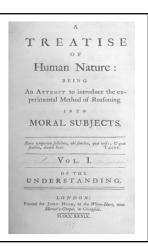
"Reason" – in both humans and animals – "is nothing but a wonderful and unintelligible instinct" that enlivens our ideas according to custom (§9).

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6(b)

Of Scepticism with Regard to Reason



From Knowledge to Probability

- Treatise 1.4.1 contains a famous and very radical – sceptical argument which later causes serious problems for Hume (and seems extremely dubious philosophically).
- Its first stage argues that, even if we assume that in "demonstrative sciences [mathematics] the rules are certain and infallible" (T 1.4.1.1), an element of doubt is still appropriate because our faculties sometimes make mistakes.
- Thus "knowledge [i.e. in the strict sense] degenerates into probability" (*T* 1.4.1.3).

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The First Reflex Judgement

Hence when we consider what confidence to place in a mathematical judgement (e.g. a solution of, say, a quadratic equation), we need also to make a judgement about the reliability of our reason or understanding:

"we ought always to correct the first judgment, derived from the nature of the object [i.e. the mathematical judgement], by another judgment, deriv'd from the nature of the understanding." (*T* 1.4.1.5)

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The Second Reflex Judgement

- The same sort of correction is appropriate for probable judgements (*T* 1.4.1.5)
- So how good are we at judging the reliability of our own faculties? That first [probable] reflex judgement is itself subject to error, so we need to make a second correction:

"we are oblig'd by our reason to add a new doubt deriv'd from the possibility of error in the estimation we make of the truth and fideity of our faculties." (*T* 1.4.1.6)

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Iterative Weakening

■ The second reflex judgement, Hume insists, can only weaken the evidence left by the first, and after that, the rot seriously sets in:

"this decision, tho' it should be favourable to our preceding judgment, being founded only on probability, must weaken still farther our first evidence, and must itself be weaken'd by a fourth doubt of the same kind, and so on *in infinitum*; and even the vastest quantity ... must in this manner be reduc'd to nothing. ... all the rules of logic require a continual diminution, and at last a total extinction of belief and evidence." (T1.4.1.6)

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Does Hume Accept the Argument?

"Shou'd it be ask'd me, whether I sincerely assent to this argument ... and whether I be really one of those sceptics, who hold that all is uncertain, and that our judgment is not in *any* thing possest of *any* measures of truth and falshood; I shou'd reply, that this question is entirely superfluous, and that neither I, nor any other person was ever sincerely and constantly of that opinion. Nature, by an absolute and uncontroulable necessity has determin'd us to judge as well as to breathe and feel; ..." (*T* 1.4.1.7)

29

The Irresistibility of Belief

"... nor can we any more forbear viewing certain objects in a stronger and fuller light, upon account of their customary connexion with a present impression, than we can hinder ourselves from thinking as long as we are awake, or seeing the surrounding bodies when we turn our eyes towards them in broad sunshine. Whoever has taken the pains to refute the cavils of this *total* scepticism, has really disputed without an antagonist ..." (*T* 1.4.1.7)

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How Does Hume Escape?

So how does Hume's own account of belief escape this iterative weakening and eventual reduction to complete suspension?

"I answer, that after the first and second decision; as the action of the mind becomes forc'd and unnatural, and the ideas faint and obscure; tho' the principles ... be the same ...; yet their influence on the imagination [weakens] ..." (*T* 1.4.1.10)

■ Hume goes on to remark that we are familiar with the difficulty of following and being moved by abstruse arguments. (*T* 1.4.1.11)

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A Trivial Property of the Fancy

Hume's Intention Here

arguments of that fantastic sect, is only to make the

reader sensible of the truth of my hypothesis, that

all our reasonings concerning causes and effects

are deriv'd from nothing but custom; and that belief

is more properly an act of the sensitive, than of the

... If belief ... were a simple act of the thought, without any peculiar manner of conception, or the

addition of a force and vivacity, it must infallibly

suspence of judgment." (T 1.4.1.8)

destroy itself, and in every case terminate in a total

cogitative part of our natures. ... I have prov'd, that

"My intention then in displaying so carefully the

- Much later, at T 1.4.7.7 (in the concluding section of Book 1), Hume will note the significance of our being saved here "from ... total scepticism only by means of that singular and seemingly trivial property of the fancy [i.e. the imagination], by which we enter with difficulty into remote views of things".
- This ultimately raises serious doubts about the adequacy of his response to scepticism in the *Treatise*: scepticism seems to be avoidable only by relying on what we would normally consider to be *irrational* principles of the imagination.

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Is Hume's Argument Strong?

- The *T* 1.4.1 argument seems dubious:
 - Suppose I make a mathematical judgement.
 - Suppose also experience suggests to me that I go wrong about 5% of the time in such judgements; so I adjust my credence to 95%.
 - Then it occurs to me that my estimate of 5% might be wrong ... but why should this make me assume that my estimate is likely to be too optimistic rather than pessimistic? Maybe my credence should be greater than 95%?

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Why Iterate?

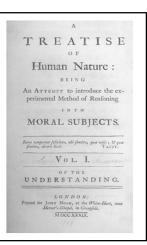
- Some defenders of Hume (e.g. Owen) admit that reduction is not forced, but suggest the iteration implies a "spreading" of the probability estimate, so it becomes completely non-specific. But this does not seem Humean (nor obviously coherent!).
- The case for iteration also seems very weak. On Hume's own principles (see *T* 1.4.1.1), my credence in a mathematical judgement should depend on my reliability [and hence remembered track record, i.e. "history of ... instances"] in judging *mathematics*, not on my reliability in judging my reliability in judging ... (etc.).

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6(c)

Of Scepticism with Regard to the Senses



Presupposing the Existence of Body

- Treatise 1.4.2 is complex, difficult, and confusing, but nevertheless rewarding.
- Hume starts out by repeating the message of T 1.4.1, that the sceptic continues to believe even when his beliefs cannot be defended:

"We may well ask, What causes induce us to believe in the existence of body? But 'tis in vain to ask, Whether there be body or not? That is a point, which we must take for granted in all our reasonings." (T 1.4.2.1).

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Doubts About the Existence of Body

- Hume accordingly announces that his agenda is to explain "the causes which induce us to believe in the existence of body" (T 1.4.2.2)
- But by the end of the section, his explanation of these causes is generating sceptical doubts:
 - "I begun ... with premising, that we ought to have an implicit faith in our senses ... But ... I feel myself at present of a quite contrary sentiment, and am more inclin'd to repose no faith at all in my senses, or rather imagination, than to place in it such an implicit confidence." (T 1.4.2.56).

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Analysing the Belief

- Hume analyses the belief in body into two aspects, each of which is to be explained:
 - "why we attribute a CONTINU'D existence to objects, even when they are not present to the senses"
 - "why we suppose them to have an existence DISTINCT from the mind and perception"
 - He goes on to explain that the distinctness of bodies involves both their external position and also their independence. (T 1.4.2.2)

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Which Faculty?

■ Having distinguished *continuity* from *dist*inctness, Hume remarks that each implies the other. He then declares his aim, to:

> "consider, whether it be the senses, reason, or the imagination, that produces the opinion of a continu'd or of a distinct existence. These are the only questions, that are intelligible on the present subject. For as to the notion of external existence, when taken for something specifically different from perceptions, we have already shown its absurdity [in T 1.2.6]"

Eliminating the Senses

- In discussing the senses as a potential source of the belief in body, Hume seems to treat them as bare sources of impressions. As such,
 - They obviously cannot "give rise to the notion of the continu'd existence of their objects, after they no longer appear to the senses". (T 1.4.2.3)
 - Nor can they "offer ... their impressions as the images of something distinct, or independent, and external ... because they convey to us nothing but a single perception, and never give us the least intimation of any thing beyond." (T 1.4.2.4)

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Fallacy, Illusion, and Transparency

- "If our senses, therefore, suggest any idea of distinct existences, they must convey the impressions as those very existences, by a kind of fallacy and illusion." (T 1.4.2.5)
- This is an illusion because the perceptions of the senses are, so to speak, transparent:
 - "all sensations are felt by the mind, such as they really are" (*T* 1.4.2.5)
 - "since all actions and sensations of the mind are known to us by consciousness, they must ... appear in every particular what they are ..." (T 1.4.2.7)

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Externality to the Body

■ It might seem relatively unproblematic for our senses to present things as external to our body, but this presupposes that we have identified our body to start with:

"ascribing a real and corporeal existence to [our limbs etc.] is an act of the mind as difficult to explain, as that which we examine at present." (T 1.4.2.9)

■ Hume adds considerations from the nature of our various senses, and the primary/secondary quality distinction (*T* 1.4.2.12-13).

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Reason and the Vulgar View

Children, peasants, and the "vulgar" in general clearly believe in the external world without consulting philosophical reason (*T* 1.4.2.14):

"For philosophy informs us, that every thing, which appears to the mind, is nothing but a perception, and is interrupted, and dependent on the mind; whereas the vulgar confound perceptions and objects, and attribute a distinct continu'd existence to the very things they feel or see. This sentiment, then, as it is entirely unreasonable, must proceed from some other faculty than the understanding."

Turning to the Imagination

■ With the senses and reason eliminated, our

body ... must be entirely owing to the

IMAGINATION" (T 1.4.2.14).

belief in "the continu'd and distinct existence of

Most of the rest of the section is devoted to an

■ At T 1.4.2.18-19, Hume identifies constancy

us to judge perceptions as external to us.

explanation of how the imagination generates

and coherence as the key factors that induce

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Eliminating Reason

- Even if we adopt the philosophers' view, and "distinguish our perceptions from our objects", we still can't reason from one to the other.
- Hume spells this out at *T* 1.4.2.47 (cf. *E* 12.12), arguing that since we are directly acquainted only with the perceptions, we are unable to establish any causal correlation with objects, and so cannot infer the latter by causal reasoning, the only kind of "argument ... that can assure us of matter of fact" (*T* 1.4.2.14).

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Constancy and Coherence

- Constancy of perceptions involves their similarity, when they "return upon me" (e.g. after closing then opening my eyes) "without the least alteration" (*T* 1.4.2.18).
- Coherent perceptions change, but in regular (and hence expected) or explicable patterns.
 - At T 1.4.2.19, Hume seems to gesture towards "Inference to the Best Explanation" (IBE), whereby we infer the existence of unperceived objects to give a coherent explanation of our observations. (This contrasts with T 1.4.2.47, which assumes that only crude induction could ground inference to an object.)

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the belief.

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Professor Peter Millican, Hertford College, Oxford

David Hume, 1711-1776



7. Scepticism about the Senses, Ancient and Modern Philosophy, the Soul and the Self

Peter Millican Hertford College, Oxford

From Last Time ...

- Treatise 1.4.1, "Of Scepticism with Regard to Reason", presents an argument for total scepticism. It does not convince (§7), but this is because belief comes from custom and feeling, rather than reason (§8).
- Treatise 1.4.2, "Of Scepticism with Regard to the Senses", seeks the basis of our belief in external bodies.
 - Hume takes our ordinary ("vulgar") belief to involve attributing "a distinct continu'd existence to the very things [we] feel or see" (§14): that is, to our impressions of sensation.
 - Such a belief (which Hume says is "entirely unreasonable", §14) cannot derive from the senses or reason, and hence must arise from the imagination, which is misled by the constancy and coherence of our relevant perceptions.

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7(a)

Of Scepticism with Regard to the Senses (continued)

TREATISE
OF
Human Nature:
BEING
AN ATTEMPT to introduce the experimental Method of Reafoning
INTO
MORAL SUBJECTS.

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Vol. I.
OFTHE
UNDERSTANDING.

LONDON:
Printed for Jones Neons, at the IFFlor-Hert, mass Material Compiler.
MIDCUXXXIX.

315

Explaining the Vulgar View

■ Hume summarises the account he is about to give at *T* 1.4.2.24:

"When we have been accustom'd to observe a constancy in certain impressions, and have found, that the perception of the sun or ocean, for instance, returns upon us after an absence or annihilation with like parts and in a like order, as at its first appearance, we are not apt to regard these interrupted perceptions as different, (which they really are) but on the contrary consider them individually the same, upon account of their resemblance. ..."

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315 316

"But as this interruption of their existence is contrary to their perfect identity, and makes us regard the first impression as annihilated, and the second as newly created, we find ourselves somewhat at a loss, and are involv'd in a kind of contradiction. In order to free ourselves from this difficulty, we disguise, as much as possible, the interruption, or rather remove it entirely, by supposing that these interrupted perceptions are connected by a real existence, of which we are insensible. This supposition, or idea of continu'd existence, acquires a force and vivacity from the memory of these broken impressions, and from that propensity, which they gives us, to suppose them the same; and ... the very essence of belief consists in the force and vivacity of the conception."

The Four-Part Account

- At *T* 1.4.2.25 (cf. *T* 1.4.2.43), Hume summarises the four parts of this account, which he then discusses in depth:
 - The principle of individuation, T 1.4.2.26-30
 - How resemblance leads us to attribute identity to interrupted perceptions, T 1.4.2.31-36
 - Why we unite interrupted perceptions by "feigning a continu'd being", T 1.4.2.37-40
 - Explaining the force and vivacity of conception, which constitutes belief (though it's a vivacious fiction rather than bona fide idea), T 1.4.2.41-42

31

A Problematic Assumption

- In Hume's complex discussion of parts two to four of his "system" from paragraphs 31 to 46 he speaks with the vulgar by supposing "that there is only a single existence, which I shall call indifferently *object* or *perception*, according as it shall seem best to suit my purpose" (§31).
 - But the causal explanation of the vulgar belief is not a rational explanation: it turns out to involve subcognitive confusions and conflations on the part of the believer.
 - So we should not expect this explanation to be expressible in vulgar terms: philosophical distinctions (e.g. between object and perception) might be essential.

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The Key Experiment

- "When we press one eye with a finger, we immediately perceive all the objects to become double" (T 1.4.2.45)
 - "But as we do not attribute a continu'd existence to both these perceptions"
 - "and as they are both of the same nature"
 - "we clearly perceive that all our perceptions are dependent on our organs, and the disposition of our nerves and animal spirits."
- A similar argument will come at *T* 1.4.4.4.

Fallacy and Fiction

- Having explained how the vulgar view arises, Hume emphasises (T 1.4.2.43) how much falsehood and error it involves:
 - False attribution of identity, into which we are "seduced" by the resemblance of perceptions.
 - The fiction of a continued existence, which "is really false" but serves "to remedy the interruption of our perceptions".
 - "experiments [reveal that] ... the doctrine of the independent existence of our sensible perceptions is contrary to the plainest experience" (*T* 1.4.2.44).

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The Philosophical System

- Philosophers realise that perceptions are not independent, but they are very reluctant (or psychologically unable) to give up belief in the continued and distinct existence of body.
- Hence they invent a new theory "of the double existence of perceptions and objects" as a "palliative remedy" (*T* 1.4.2.46).
- This "has no primary recommendation either to reason or the imagination", and acquires all its imaginative appeal from the vulgar view.

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321 322

Recapitulation and Overview

- In spelling out these points, Hume repeats or expands some of his earlier arguments:
 - Reason cannot establish continuing objects causing our perceptions (*T* 1.4.2.47).
 - The imagination leads naturally to the vulgar, rather than philosophical, view (*T* 1.4.2.48).
 - Hence the philosophical view must acquire its force from the vulgar view (*T* 1.4.2.49-52).
 - This explains various aspects of the philosophical view (*T* 1.4.2.53-55).

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The Despairing Conclusion

"I cannot conceive how such trivial qualities of the fancy, conducted by such false suppositions, can ever lead to any solid and rational system. ... Philosophers deny our resembling perceptions to be identically the same, and uninterrupted; and yet have so great a propensity to believe them such, that they arbitrarily invent a new set of perceptions, to which they attribute these qualities. I say, a new set of perceptions [because] ... 'tis impossible for us distinctly to conceive, objects to be in their nature any thing but exactly the same with perceptions. What then can we look for from this confusion of groundless and extraordinary opinions but error and falshood? And how can we justify to ourselves any belief we repose in them?" (T 1.4.2.56)

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Carelessness and Inattention

"As long as our attention is bent upon the subject, the philosophical and study'd principle may prevail; but the moment we relax our thoughts, nature will display herself, and draw us back to our former opinion." (T 1.4.2.51 cf. 53)

"Tis impossible upon any system to defend either our understanding or senses; and we but expose them farther when we endeavour to justify them in that manner. As the sceptical doubt arises naturally from a profound and intense reflection on those subjects, it aways encreases, the farther we carry our reflections, whether in opposition or conformity to it. Carelessness and in-attention alone can afford us any remedy." (T 1.4.2.57)

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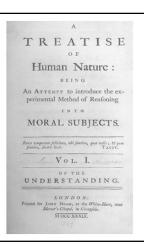
"Tis impossible ... to defend either our understanding or senses"

- The passage just quoted implicitly refers back to the "scepticism with regard to reason" of T 1.4.1 (note that "the understanding" and "reason" are the same).
- T 1.4.1 and 1.4.2 thus combine to deliver a radically sceptical message: that the only thing able to protect us from extreme scepticism is our own failure to attend to, or follow, the sceptical arguments (cf. T 1.4.1.9-11).
- Laying such scepticism aside, Hume will now go on to consider some philosophical systems, "antient and modern" (T 1.4.2.57) regarding the external world.

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7(b)

Of the Antient and Modern **Philosophies**



327

Of the Antient Philosophy

■ Section 1.4.3 of the *Treatise* is largely devoted to debunking Aristotelianism:

"the fictions of the antient philosophy, concerning substances, and substantial forms, and accidents, and occult qualities; which, however unreasonable and capricious, have a very intimate connexion with the principles of human nature." (T 1.4.3.1)

Hume explains these "fictions" as naturally arising from the imagination, by which the "Peripatetics" (i.e. Aristotelians) allowed themselves - far too easily and naively - to be seduced.

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False Simplicity and Identity

- "The most judicious philosophers" [e.g. Locke, Essay II xxiii] consider "that our ideas of bodies are nothing but collections form'd by the mind of the ideas of the several distinct sensible qualities, of which objects are compos'd".
- But the sorts of confusions outlined in *T* 1.4.2 lead us naturally to think of objects as simple things that retain their identity through time:

"The smooth and uninterrupted progress of the thought ... readily deceives the mind, and makes us ascribe an identity to the changeable succession ..." (T 1.4.3.3)

Inventing Substance

■ When we realise these supposedly identical things have actually changed over time,

"the imagination is apt to feign something unknown and invisible, which it supposes to continue the same under all these variations; and this unintelligible something it calls a substance, or original and first matter." (T 1.4.3.4)

■ We likewise imagine this original substance to be simple and uncompounded, supplying

"a principle of union or cohesion among [the object's] qualities" (T 1.4.3.5)

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Substantial Forms and Accidents

- The Peripatetics (i.e. Aristotelians) then ascribe the differences between substances to their different substantial forms (T 1.4.3.6).
- Qualities of objects such as colour and figure are then considered as accidents (i.e. accidental as opposed to essential qualities) "inhering in" the substance, so these philosophers:

"suppose a substance supporting, which they do not understand, and an accident supported, of which they have as imperfect an idea. The whole system, therefore, is entirely incomprehensible." (T 1.4.3.8)

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Faculties and Occult Qualities

Alluding back to his theory of causal inference, Hume remarks that men naturally "imagine they perceive a connexion" between constantly conjoined objects. Philosophers who investigate further cannot find any such connexion,

"But ... instead of drawing a just inference from this observation, and concluding, that we have no idea of power or agency, separate from the mind, and belonging to causes ..., they ... [invent] the words faculty and occult quality. ... They need only say, that any phaenomenon, which puzzles them, arises from a faculty or an occult quality ..." (T 1.4.3.9-10)

Ridiculing Sympathies and Antipathies

"But among all the instances, wherein the Peripatetics have shown they were guided by every trivial propensity of the imagination, no one is more remarkable that their sympathies, antipathies, and horrors of a vacuum. There is a very remarkable inclination in human nature, to bestow on external objects the same emotions, which it observes in itself ... This inclination, 'tis true, is suppress'd by a little reflection, and only takes place in children, poets, and the antient philosophers. ... We must pardon children, because of their age; poets, because they profess to follow implicitly the suggestions of their fancy: But what excuse shall we find to justify our philosophers in so signal a weakness?" (T 1.4.3.11)

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"In order to justify myself, I must distinguish in the imagination betwixt the principles which are permanent, irresistible, and universal; such as the customary transition from causes to effects, and from effects to causes: And the principles, which are changeable, weak, and irregular; such as those I have just now taken notice of. The former are the foundation of all our thoughts and actions, so that upon their removal human nature must immediately perish and go to ruin. The latter are neither unavoidable to mankind, nor necessary, or so much as useful in the conduct of life; but on the contrary are observ'd only to take place in weak minds, and being opposite to the other principles of conduct and reasoning, may easily be subverted by a due contrast and opposition. For this reason the former are receiv'd by

philosophy, and the latter rejected." (T 1.4.4.1)

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Imaginative Principles, Good and Bad

- Hume has strongly criticised the Aristotelians for basing their philosophy on the imagination. But this might seem very unfair, when he has earlier (in T 1.3.6) argued that all inductive "experimental reasoning" which he advocates as the only legitimate basis of science (and trumpets in the subtitle of the Treatise) is itself founded on custom, which he seems to view as a principle of the imagination (T 1.3.6.4, 1.3.7.6).
- He addresses this objection in a famous passage at T 1.4.4.1, distinguishing between two sorts of imaginative principles, one sort philosophically respectable and the other disreputable ...

Modern (Lockean) philosophy claims to be based

- Of the Modern Philosophy
- on the "solid, permanent, and consistent principles of the imagination", rather than those that are "changeable, weak, and irregular" (T 1.4.4.1-2).
- But now Hume will argue through an attack on the primary/secondary quality distinction - that it has no such secure foundation.
- He suggests that the only "satisfactory" argument for the distinction "is deriv'd from the variations of [sensory] impressions" depending upon our health, constitution, situation etc. (T 1.4.4.2).

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A Causal Argument

"Tis certain, that when different impressions of the same sense arise from any object, every one of these impressions has not a resembling quality existent in the object. ... Now from like effects we presume like causes. Many of the impressions of colour, sound, &c. are confest to be nothing but internal existences, and to arise from causes, which in no way resemble them. These impressions are in appearance nothing different from the other impressions of colour, sound, &c. We conclude, therefore, that they are, all of them, deriv'd from a like origin." (T 1.4.4.4)

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Annihilating Matter

- Colour "is excluded from any real existence" (as a subjective secondary quality).
- "The idea of solidity is that of two objects, which ... cannot penetrate each other" (T 1.4.4.9). So understanding solidity requires some antecedent grasp of what an object is, and with colour and solidity itself excluded, there's nothing left which can give this.
- "Our modern philosophy, therefore leaves us no just nor satisfactory idea ... of matter."

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7(c)Of the

of the Soul

TREATISE Human Nature: BEING An ATTEMPT to introduce the ex-perimental Method of Reasoning INTO MORAL SUBJECTS. Rara temperum felicitas, udi fentire, qua velis e e qua **Immateriality** Vol. I. UNDERSTANDING.

A Berkeleian Objection

Hume focuses on one objection, which takes inspiration from George Berkeley:

"If colours, sounds, tastes, and smells be merely perceptions, nothing we can conceive is possest of a real, continu'd, and independent existence; not even motion, extension and solidity, which are the primary qualities chiefly insisted on [by Lockeans]." (T 1.4.4.6)

To form an idea of a moving extended body, my idea of extension must have some content, which can only come from sight or touch, hence ultimately from coloured or solid simples.

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Reason Against the Senses

■ Hume elaborates this argument further over T 1.4.4.10-14, and then sums up:

"Thus there is a direct and total opposition betwixt our reason and our senses; or more properly speaking, betwixt those conclusions we form from cause and effect, and those that perswade us of the continu'd and independent existence of body." (§15)

Causal reasoning concludes that secondary qualities aren't objective; but without appeal to subjective colour and feel, we cannot form any coherent notion of an extended body.

Turning to the Internal World

- "Of the Immateriality of the Soul" marks a turn to "the intellectual world". This, "tho' involv'd in infinite obscurities", is not perplex'd with any such contradictions, as those we have discovered in the natural" (T 1.4.5.1).
- From T 1.4.5.2-6, Hume attacks the notion of mental substance - and the related notion of inhesion - in various ways, including an appeal to the Copy Principle (at T 1.4.5.4). Both notions are condemned as meaningless.

Taking Separability Too Far?

At T 1.4.5.5, Hume responds to the attempt to "evade the difficulty, by saying, that the definition of a substance is something which may exist by itself":

"this definition agrees to every thing, that can possibly be conceiv'd; ... Whatever is clearly conceiv'd may exist; ... every thing, which is different, is distinguishable, and every thing which is distinguishable, is separable by the imagination. My conclusion ... is, that since all our perceptions are different from each other, and from every thing else in the universe, they are also distinct and separable, and may be consider'd as separately existent, and may exist separately, and have no need of any thing else to support their existence. They are, therefore, substances, as far as this definition explains a substance."

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3

A Spinozistic Parody

- From *T* 1.4.5.17-28, Hume parodies standard arguments against the "hideous hypothesis" (*T* 1.4.5.19) of Spinoza, deploying them against the orthodox theological idea of a simple soul.
- Spinoza sees "the universe of objects" as being modifications of a "simple, uncompounded, and indivisible" substance (*T* 1.4.5.21). This is supposed to be outrageous. And yet theologians see "the universe of thought" my impressions and ideas as being all modifications of a simple, uncompounded and indivisible soul.

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345 346

- *T* 1.4.5.31 poses a dilemma, whether causation is to be understood as involving some intelligible connexion, or instead just constant conjunction.
- Hume clearly opts for the second of these, thus implying that thought could have a material cause:

"all objects, which are found to be constantly conjoin'd, are upon that account only to be regarded as causes and effects. Now as all objects, which are not contrary, are susceptible of a constant conjunction, and as no real objects are contrary; it follows, that for ought we can determine by the mere ideas, any thing may be the cause or effect of any thing; which evidently gives the advantage to the materialists above their antagonists." (*T* 1.4.5.31)

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The Location of Perceptions

- From *T* 1.4.5.7-16, Hume discusses the issue of the location and extension of perceptions:
 - Note in particular his insistence that only perceptions of sight and feeling have spatial location (*T* 1.4.5.10).
 Other, non-spatial, perceptions prove that "an object may exist, and yet be no where". So causation cannot require spatial contiguity (cf. *T* 1.3.2.6 n. 16).
 - Note also the illusion whereby we are seduced by the imagination into ascribing sensations of taste (which have no physical location) to the object – e.g. a fig – that produces them (*T* 1.4.5.13-14); this discussion was referenced by the footnote at 1.3.14.25 n.32.

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Defending Materialism

■ The most important part of *Treatise* 1.4.5 for Hume's own philosophy – discussed in our very first lecture – is his refutation of the standard anti-materialist argument by direct appeal to his theory of causation:

"to consider the matter a priori, any thing may produce any thing, ... they are constantly united; which being all the circumstances, that enter into the idea of cause and effect, ..." (T 1.4.5.30)

"the constant conjunction of objects constitutes the very essence of cause and effect" (T 1.4.5.33)

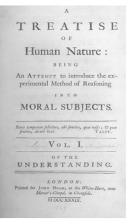
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- A Puzzling Conclusion
- The final paragraph, *T* 1.4.5.35, starts by repeating Hume's key principle (cf. *T* 1.3.15.1 and 1.4.5.30) that causes and effects can be known only by experience, since "whatever we can imagine, is possible" (i.e. the Conceivability Principle).
- However the last two sentences refer to "the immortality of the soul", which hasn't so far been mentioned! This seems to be a trace of one of the "noble parts" on religion which Hume excised from the *Treatise* manuscript when he "castrated" it in 1737 (cf. letter to Henry Home, NHL 2)

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7(d)

Of Personal Identity



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Of Personal Identity

- *Treatise* 1.4.6 addresses the topic of personal identity, wielding the Copy Principle (T 1.4.6.2) to deny that we have any idea of the self which is anything like the conventionally presumed notion with its "perfect identity and simplicity" (T 1.4.6.1).
- There is no such impression, and hence no such idea, of self (T 1.4.6.2). When I look inside 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)

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The Bundle Theory

■ Hence the only genuine idea of self is that of:

"nothing but a bundle or collection of different perceptions [impressions and ideas], which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. ... The mind is a kind of theatre, where several perceptions successively make their appearance ... There is properly no simplicity in it at one time, nor identity in different. ... The comparison of the theatre must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place, where these scenes are represented ..." (T 1.4.6.4)

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Explaining the Attribution of Identity

- Hume now goes on to explain our "propension to ascribe an identity to these successive perceptions, and to suppose ourselves possest of an invariable and uninterrupted existence" (T 1.4.6.5).
- He takes this to involve the same sort of imaginative principles that are at play when we attribute identity "to plants and animals". The similarity of the sequence of perceptions over time "facilitates the transition of the mind from one object to another, and renders its passage as smooth as if it contemplated one continu'd object" (T 1.4.6.6). Thus we come to think of them as "as invariable and uninterrupted".

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Confusion, Absurdity, and Fictions

- So just as with external objects (cf. T 1.4.2 and 1.4.3), when we consider a gradually changing sequence of perceptions, we are apt to confuse this with an ongoing identity (T 1.4.6.6).
- Reflection on the changing sequence shows this to be absurd, so to resolve "this absurdity, we ... feign some new and unintelligible principle, that connects the objects together ... Thus we ... run into the notion of a soul, and self, and substance, to disguise the variation." The next sentence calls this a fiction.

Association and Identity

- "To prove this hypothesis", Hume aims "to show ... that the objects, which are variable or interrupted, and yet are suppos'd to continue the same, are such only as consist of a succession of parts, connected together by resemblance, contiguity, or causation", that is, by the association of ideas (T 1.4.6.7).
- We tend to attribute identity when changes are proportionately small and gradual (T 1.4.6.9-10), or when the changing parts are relevant to "some common end or purpose", and all the more so when they bear "the reciprocal relation of cause and effect" to each other (T 1.4.6.11-12).

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Explaining Personal Identity

- The attribution of personal identity is just another instance of this phenomenon: "The identity, which we ascribe to the mind of man, is only a fictitious one, and of a like kind with that which we ascribe to vegetables and animal bodies." (*T* 1.4.6.15)
- Hume backs this up by appeal to his Separability Principle and his theory of causation, which tell us "that the understanding never observes any real connexion among objects, and that even the union of cause and effect ... resolves itself into a customary association of ideas". So identity cannot really apply between our perceptions (T 1.4.6.16).

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Notorious Second Thoughts

■ In the *Appendix* to the *Treatise*, published with Book 3 in late 1740 (just 21 months after Books 1 and 2), Hume famously expresses despair about his account:

"upon a more strict review of the section concerning *personal identity*, I find myself involv'd in such a labyrinth, that, I must confess, I neither know how to correct my former opinions, nor how to render them consistent." (*T App* 10).

Unfortunately, Hume leaves it very obscure what exactly he takes the problem to be:

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A "Bundling Problem"?

- Many have seen the heart of Hume's difficulty as some sort of bundling problem, e.g.:
 - What is it that makes our perceptions part of "our bundle" in the way that enables us to be seduced into thinking of them as a continuing self?
 - After all, I have no temptation to think of your perceptions as part of my self, because they don't even come to my awareness!
 - This all seems to presuppose that the perceptions must *genuinely* be bundled in some way *before* Hume's account of the error can even get going.

Resemblance, Causation, Memory

- So "our notions of personal identity, proceed entirely from the smooth and uninterrupted progress of the thought along a train of connected ideas" (7 1.4.6.16).
- Contiguity plays little role here, so it is the mutual resemblance and causation between our perceptions that are crucial (*T* 1.4.6.17-19).
- Memory produces resemblance between our perceptions, and our concern about our future adds to their causal linkages. Memory also reveals the sequence of linked perceptions to us, and so is the chief "source of personal identity" (T 1.4.6.18-20).

Two Inconsistent Principles?

"In short there are two principles, which I cannot render consistent; nor is it in my power to renounce either of them, viz. that all our distinct perceptions are distinct existences, and that the mind never perceives any real connexion among distinct existences. Did our perceptions either inhere in something simple and individual, or did the mind perceive some real connexion among them, there would be no difficulty in the case." (*T App* 21)

■ But the two cited principles aren't apparently inconsistent! So this has left an intriguing puzzle for Hume's interpreters.

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Changes of Mind?

- The issue of personal identity isn't discussed at all in Hume's later works (apart from a hint in the posthumously published *Dialogues concerning Natural Religion*, at *D* 4.2).
- The 1748 Enquiry doesn't discuss identity over time, but seems to view the continuing identity of changing objects as coherent (E 12.12).
- The Separability Principle also disappears, so Hume may have changed his mind on the principles that made identity, especially of persons, so intractable in the *Treatise*.

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David Hume, 1711-1776



8. Hume's Sceptical Crisis, and His Second Thoughts

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From Last Time ...

- Treatise 1.4.1, "Of Scepticism with Regard to Reason", and 1.4.2, "Of Scepticism with Regard to the Senses", conclude that our beliefs whether concerning objects that we seem to perceive, or the inferences we draw are rationally unsustainable. But in both cases, we are humanly unable to maintain such radical scepticism, and retain our beliefs through "carelessness and in-attention".
- In Treatise 1.4.3, "Of the Ancient Philosophy", Hume ridicules Aristotelians for following their imagination (like children and poets) in attributing purposes to objects.
 - But his own philosophy of induction and belief is founded on custom and hence "the imagination"; so isn't he being unfair?
 - At T 1.4.4.1, Hume sketches a defence against this objection, distinguishing between two categories of "imaginative" principle.

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- Treatise 1.4.4, "Of the Modern Philosophy, then goes on to reveal yet another problem with the conventional Lockean belief in external objects, making at least three in all:
 - Identity over time, e.g. T 1.4.2.31-2, 1.4.3.2-4;
 - Impossibility of inference, e.g. T 1.4.2.47;
 - We cannot form an idea of primary qualities without relying on secondary qualities, which are acknowledged to be "nothing but impressions in the mind" (*T* 1.4.4.3). So we can form no coherent idea of a mind-independent object (*T* 1.4.4.6-9).
- Treatise 1.4.5-6, "Of the Immateriality of the Soul" and "Of Personal Identity", may well be radically sceptical from a traditional perspective, but Hume does not see them as leading to "such contradictions and difficulties" as he claims to have found by now "in every system concerning external objects, and in the idea of matter" (T 1.4.5.1).

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8(a)

Development of the Humean "Imagination"

TREATISE
OF
Human Nature:
BEING
AN ATTEMPT to introduce the experimental Method of Reasoning
INTO
MORAL SUBJECTS.

Bess temporal skillers, and skellers, for even to the particular, skellers, skell

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"Imagination" as the Faculty of Having, and Operating on, Ideas

- In Lecture 2 (slides 12-24), we saw how Hume's Copy Principle leads him – following Locke – to assimilate thinking to the having of mental images.
- In particular, Hume denies that we can form purely intellectual, non-imagistic ideas (T 1.3.1.7).
- This implies that the *imagination*, traditionally conceived of as the faculty we use when *imagining* things (e.g. fanciful ideas that we have created ourselves, cf. slide 2.15), becomes more generally where our thinking takes place (cf. 3.10, 23).

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"Imagination" as Opposed to "Reason" or "the Understanding"

- In Lecture 3, we saw that Hume implicitly identifies "reason" with "the understanding" (slide 3.19), and two of his most famous discussions – of induction and the external world – set this faculty in opposition to "the imagination" (also called "the fancy").
- Moreover they proceed by showing first that reason cannot explain the belief in question (either about the unobserved, or about the existence of body), and then concluding that the imagination must be responsible, apparently because the belief requires a non-rational explanation (slides 4.34, 6.45-7).

Slide 3.7: Faculties, Induction, and Body

- "... the next question is, whether experience produces the idea by means of the understanding or imagination; whether we are determined by reason to make the transition, or by ... association ... of perceptions." (*T* 1.3.6.4)
- "The subject, then, of our present enquiry, is concerning the causes which induce us to believe in the existence of body: ... we ... shall consider, whether it be the senses, reason, or the imagination, that produces the opinion of a continu'd or of a distinct existence." (T 1.4.2.2)

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Yet Custom Remains Respectable

- Although Hume consistently treats our belief in body as rationally questionable (e.g. involving "fiction", "falsehood and illusion", cf. slides 6.45, 7.8-13), he treats our inductive beliefs with far more respect.
- He becomes more explicit about this in the *Abstract* and first *Enquiry* (see slide 4.35):
 - "Tis not, therefore, reason, which is the guide of life, but custom." (A 16)
 - "Custom, then, is the great guide of human life" (E 5.6)
- And he continues to treat causal inductive inference
 albeit founded on custom (an associative principle of the imagination) as an operation of reason:

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Citations from Slide 3.16

- T 1.3.11.2 ("human reason" includes *proofs* and *probabilities*);
- 1.4.2.47, 1.4.4.15 ("reason" includes inference from cause and effect);
- 2.3.3.3 ("reason is nothing but the discovery of" cause and effect relations);
- 3.1.1.12 ("reason, in a strict and philosophical sense, ... discovers the connexion of causes and effects");
- 3.1.1.18 ("the operations of human understanding [include] the inferring of matter of fact").

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A Distinction between Principles, Rather than Faculties

■ In Slide 5.12 we saw Hume advocating higher-order reflection and formulation of "general rules", so as to enable us reliably to identify the genuine causal factors in similar situations, avoiding crude prejudice. Now note what he says about this in faculty terms:

"The general rule is attributed to our judgment; as being more extensive and constant. The exception to the imagination; as being more capricious and uncertain." (*T* 1.3.13.11)

The distinction is being drawn between types of principle, rather than in terms of parts of the mind.

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A Tension in "the Imagination"

■ A tension emerges in the course of *T* 1.3.9.4 (cf. Slide 5.4), given that custom is itself supposedly a principle of the imagination :

"All this, and every else, which I believe, are nothing but ideas; tho' by their force and settled order, arising from custom and the relation of cause and effect, they distinguish themselves from the other ideas, which are merely the offspring of the imagination."

■ The phrase "offspring of the imagination" occurs at only one other point in Hume's writings ...

A Last-Minute Footnote

■ Hume inserted a footnote at the end of this section, by means of a specially printed "cancel" leaf, while the *Treatise* was in press:

"as our assent to all probable reasonings is founded on the vivacity of ideas, it resembles many of those whimsies and prejudices, which are rejected under the opprobrious character of being the offspring of the imagination. By this expression it appears that the word, *imagination*, is commonly us'd in two different senses; and ... in the following reasonings I have often [fallen] into [this ambiguity]." (T 1.3.9.19 n. 22)

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Distinguishing "Reason" from "the Imagination"

■ The footnote at *T* 1.3.9.19 continues:

"When I oppose the imagination to the memory, I mean the faculty, by which we form our fainter ideas. When I oppose it to reason, I mean the same faculty, excluding only our demonstrative and probable reasonings." (a similar note, deleted from *T* 2.2.7.6, refers to "the understanding" rather than "reason")

Again we have a hint that the reason/imagination distinction is one based on types of principle, and founded on their reliability cf. capriciousness.

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Quotations from Slide 3.22

- Hume seems to be blur the reason/imagination boundary at a number of points in the *Treatise*:
 - "... the understanding or imagination can draw inferences from past experience ..." (*T* 1.3.8.13)
 - "... the judgment, or rather the imagination ..." (*T* 1.3.9.19)
 - "The memory, senses, and understanding are ... all ... founded on the imagination" (\it{T} 1.4.7.3)
 - "... the imagination or understanding, call it which you please ..." (T 2.3.9.10, also DOP 1.8)
 - "... my senses, or rather imagination ..." (*T* 1.4.2.56)
 - "... the understanding, that is, ... the general and more establish'd properties of the imagination" (T 1.4.7.7)

3/4

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Principles of "the Imagination"

The last quotation here seems to be alluding to the distinction that Hume invokes at T 1.4.4.1, to "justify" himself against the charge of unfairness:

- The Respectable "General" Principles
 - These are "permanent, irresistible, and universal" (e.g. custom/induction). Hume himself relies on these as the basis of factual inference and science.
- The Disreputable "Trivial" Principles
 - These are "changeable, weak, and irregular" (e.g. imaginative fancies). Hume criticises ancient philosophers and others for depending on these.

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"In order to justify myself, I must distinguish in the imagination betwixt the principles which are permanent, irresistible, and universal; such as the customary transition from causes to effects, and from effects to causes: And the principles, which are changeable, weak, and irregular; such as those I have just now taken notice of. The former are the foundation of all our thoughts and actions, so that upon their removal human nature must immediately perish and go to ruin. The latter are neither unavoidable to mankind, nor necessary, or so much as useful in the conduct of life; but on the contrary are observ'd only to take place in weak minds, and being opposite to the other principles of conduct and reasoning, may easily be subverted by a due contrast and opposition. For this reason the former are receiv'd by philosophy, and the latter rejected." (T 1.4.4.1)

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Summing Up These Points ...

- Again, Hume thinks that <u>all</u> our ideas are imagistic, and attacks the rationalist view that we have pure intellectual ideas (*T* 1.3.1.7).
 - If so, then <u>all</u> of our reasoning must take place in the "imagination" (as traditionally conceived), and <u>"reason" cannot be some separate part of the mind.</u>
- Thus the distinction between "reason" and "the imagination" must be drawn on the basis of <u>the</u> <u>kinds of principles</u> that govern our thinking:
 - Rational principles are disciplined and reliable;
 - Imaginative principles are unreliable and capricious.

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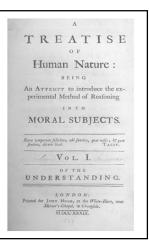
The Significance of the Distinction

- Although Hume seems to have no sceptical intent when presenting his famous argument concerning induction at *T* 1.3.6, it seems that he later saw the need to draw a clear distinction between the respectable and disreputable principles that act on the imagination, considering the former (notably *custom*, at least when disciplined by general rules) to be part of "reason", but the latter mere "imagination".
- This distinction seems to be crucial to his attempt to vindicate customary inference as the basis of probable reason. If it fails, then so does his attempt to build a rational science of human nature!

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8(b)

Treatise 1.4.7: "Conclusion of this Book"



"Conclusion of This Book"

- Treatise 1.4.7 is especially hard to interpret, partly because it is presented as a dynamic sequence of firstpersonal reflections on the position in which Hume has been left by the sceptical results from earlier sections.
- Most of our mental processes have been revealed as dependent on the imagination and its mechanisms, which generate "the vivacity of ideas" (T 1.4.7.3).
- Worse, T 1.4.4 has found a "manifest contradiction" between our causal reasoning and our belief in the independent existence of matter (T 1.4.7.4).
- The analysis of causation in T 1.3.14 also shows our thoughts about that to be deeply confused (T 1.4.7.5).

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The "Dangerous Dilemma"

- We have now seen several seductive "illusions of the imagination" to which we are naturally prone, "and the question is, how far we ought to yield to these illusions. This question is very difficult, and reduces us to a very dangerous dilemma, whichever way we answer it." (T 1.4.7.6)
- On the one hand,

"if we assent to every trivial suggestion of the fancy; beside that these suggestions are often contrary to each other; they lead us into such errors, absurdities, and obscurities, that we must at last become asham'd of our credulity." (T 1.4.7.6)

"But on the other hand,

"if [we] take a resolution to reject all the trivial suggestions of the fancy, and adhere to the understanding, that is, to the general and more establish'd properties of the imagination; even this resolution, if steadily executed, wou'd be dangerous, and attended with the most fatal consequences. For I have already shewn, [note to T 1.4.1] that the understanding, when it acts alone, and according to its most general principles, entirely subverts itself, and leaves not the lowest degree of evidence in any proposition, either in philosophy or common life. We save ourselves from this total scepticism only by means of that singular and seemingly trivial property of the fancy, by which we enter with difficulty into remote views of things, and are not able to accompany them with so sensible an impression, as we do those, which are more easy and natural." (T 1.4.7.7)

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Recall from Lecture 6 ...

■ Hume's explanation why our beliefs survive the radical sceptical argument of T 1.4.1:

"I answer, that after the first and second decision; as the action of the mind becomes forc'd and unnatural, and the ideas faint and obscure; tho' the principles ... be the same ...; yet their influence on the imagination [weakens] ..." (T 1.4.1.10)

■ Hence his statement, as quoted from T 1.4.7.7:

"We save ourselves from this total scepticism only by means of that singular and seemingly trivial property of the fancy, by which we enter with difficulty into remote views of things"

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■ Could the sceptical calamity of *T* 1.4.1 be avoided if we "establish it for a general maxim, that no refin'd or elaborate reasoning is ever to be receiv'd"? Such a principle would be hugely damaging:

"By this means you cut off entirely all science and philosophy: You proceed upon one singular quality of the imagination, and by a parity of reason must embrace all of them: And you expresly contradict yourself; since this maxim must be built on the preceding reasoning, which will be allow'd to be sufficiently refin'd and metaphysical. What party, then, shall we choose among these difficulties? If we embrace this principle, and condemn all refin'd reasoning, we run into the most manifest absurdities. If we reject it in favour of these reasonings, we subvert entirely the human understanding. We have, therefore, no choice left but betwixt a false reason and none at all." (T 1.4.7.7)

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"A Manifest Contradiction"

"For my part, I know not what ought to be done in the present case. I can only observe what is commonly done; which is, that this difficulty is seldom or never thought of ... Very refin'd reflections have little or no influence upon us; and yet we do not, and cannot establish it for a rule, that they ought not to have any influence; which implies a manifest contradiction.

But what have I here said, that reflections very refin'd and metaphysical have little or no influence upon us? ..." (*T* 1.4.7.7-8)

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Carelessness and Inattention Again

Psychological (though not philosophical) resolution comes from a now-familiar direction: the "carelessness and in-attention" of T 1.4.2.57.

"Most fortunately it happens, that since reason is incapable of dispelling these clouds, nature herself suffices to that purpose, and cures me of this philosophical melancholy and delirium, ... I dine, I play a game of back-gammon, I converse, and am merry with my friends; and [afterwards] these speculations ... appear so cold, and strain'd, and ridiculous, that I cannot find it in my heart to enter into them any farther." (T 1.4.7.9)

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The Title Principle

- Don Garrett sees a *philosophical* resolution to all these sceptical quandaries as lying in what he calls Hume's "Title Principle", which is proposed at *T* 1.4.7.11:
 - "... if we are philosophers, it ought only to be upon sceptical principles, and from an inclination, which we feel to the employing ourselves after that manner. Where reason is lively, and mixes itself with some propensity, it ought to be assented to. Where it does not, it never can have any title to operate upon us."

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In "the Deepest Darkness"

"The *intense* view of these manifold contradictions and imperfections in human reason has so wrought upon me, and heated my brain, that I am ready to reject all belief and reasoning, and can look upon no opinion even as more probable or likely than another. Where am I, or what? From what causes do I derive my existence, and to what condition shall I return? ... I am confounded with all these questions, and begin to fancy myself in the most deplorable condition imaginable, inviron'd with the deepest darkness, and utterly depriv'd of the use of every member and faculty." (*T* 1.4.7.8)

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A Sceptical Disposition

"Here then I find myself absolutely and necessarily determin'd to live, and talk, and act like other people in the common affairs of life. ... I may, nay I must yield to the current of nature, in submitting to my senses and understanding; and in this blind submission I show most perfectly my sceptical disposition and principles. Does it follow, that I must strive against the current of nature ... and that I must torture my brain with subtilities and sophistries ... Under what obligation do I lie of making such an abuse of time?" (T 1.4.7.10)

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Curiosity

- Hume then points out that he does indeed have a propensity to investigate the world:
 - "I cannot forbear having a curiosity to be acquainted with the principles of moral good and evil, the nature and foundation of government, and the cause of those several passions and inclinations, which actuate and govern me. ..." (*T* 1.4.7.12)
- This seems to point forward to *Treatise* Books 2 and 3, on the passions and morals.

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Philosophy versus Superstition

Unfortunately, "philosophy" (or what we would call science) is not the only kind of reasoning that is "lively and mixes itself with some propensity", for humans have a strong propensity towards lively superstitions. Hume's answer:

"we ought only to deliberate concerning the choice of our guide, and ought to prefer that which is safest and most agreeable. And in this respect I make bold to recommend philosophy, and ... give it the preference to superstition of every kind ..." (*T* 1.4.7.13)

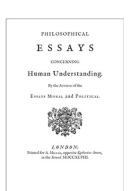
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An Impasse

- But how, given all his sceptical arguments, can Hume claim any solid basis for saying that philosophy (which on his own account contradicts itself) is safer or more agreeable than superstition?
- He is reduced to the apparently rather lame observation that "the errors in religion are dangerous; those in philosophy only ridiculous" (*T* 1.4.7.13).
- This invites the response that religious truth is crucial for the avoidance of hellfire etc., and so we should follow religion if we want to be "safest" with regard to our future prospects. Without a rational basis for discrimination, Hume seems to have no answer.

8(c)

Enquiry 12: Hume's Second Thoughts



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A Speculation

- Hume's discussion "Of the Academical of Sceptical Philosophy", Section 12 of the 1748 Enquiry (originally published as Philosophical Essays concerning Human Understanding), evinces a very different attitude to scepticism, facing up to the extreme sceptic and advocating instead a "mitigated" variety.
- One driver of this change might have been Hume's realisation on writing up his arguments for the new publication that the extreme sceptical argument of Treatise 1.4.1 cannot be coherently expounded beyond the first couple of stages. The "and so on" move in T 1.4.1.6 (and likewise in commentators' attempts to defend the argument) is really just hand-waving ...

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doubt deriv'd from the possibility of error in the estimation we make of the truth and fidelity of our faculties. ... this decision [regarding the reliability of that estimate], tho' it should be favourable to our preceding judgment, being founded only on probability, must weaken still farther our first evidence, and must itself be weaken'd by a fourth doubt of the same kind, and so on *in infinitum*; and even the vastest quantity ... must in this manner be reduc'd to nothing. ... all the rules of logic require a continual diminution, and at last a total

extinction of belief and evidence." (T 1.4.1.6)

"we are oblig'd by our reason to add a new

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Why Iterate?

- The case for repeated iteration is hopeless. My credence in my mathematical judgment should on the very principles explained at T 1.4.1.1 depend on my reliability [and hence remembered track record] in judging mathematics, not on my reliability in judging my reliability in judging ... (etc.).
 - Hume's argument itself relies on memory and records, explicitly appealing to the "history of the instances" of my past judgments (T 1.4.1.1), and expressing no scepticism about our memory or record-taking ability etc. These remembered/recorded statistics remain what they are, irrespective of how good or bad I might be at iterative reflexive judgments.

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Where is the Obligation of Reason?

- Even if there were some good reason *in principle* to iterate up lots of levels, *in practice* doing so is clearly impossible for us (as Hume emphasises), and it apparently doesn't make us better judges (since it pulls us away from the true statistics). So how can it possibly be *an obligation of reason* to iterate, as *T* 1.4.1.6 insists?
- On Hume's own conception of reason, reflexive checking can only make sense if it is warranted by experience. There is no a priori requirement to do it, and hence the lack of any a posteriori benefit entirely undermines the supposed obligation.

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Implicitly Rejecting *T* 1.4.1?

- Hume's dismissal of antecedent scepticism in the Enquiry (at E 12.3) seems to involve denying that reflexive checking is a rational requirement for relying on our faculties.
 - If so, that also casts doubt on the argument of T 1.4.1, which functioned precisely by insisting that we should perform such checking (and indeed should do so ad infinitum).
- Now Hume seems to think that we should start with trust in our faculties by default, unless and until we find positive reason to distrust them.

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Dismissing "Antecedent" Scepticism

"There is a species of scepticism, antecedent to all study and philosophy, which is much inculcated by Des Cartes and others ... It recommends an universal doubt ... 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 ... But neither is there any such original principle, which has a prerogative above others ... 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."

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(E12.3)

Convergence: the Onus of Proof

- What the Enquiry calls consequent skepticism (E 12.5) thus instead puts the onus on the sceptic to identify problems with our faculties.
- At E 12.22-3, we see the same strategy deployed very effectively to answer Hume's famous "sceptical doubts" about induction (as presented in Section 4).
- Here we see a striking convergence in Hume's approach to topics that were treated quite differently in the Treatise. He now finds a satisfactory resolution of scepticism, and a plausible criterion of respectable scientific enquiry, in mitigated scepticism (E 12.24-5) and his Fork (E 12.26-34).

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"Ample Matter of Triumph"

"The sceptic ... seems to have ample matter of triumph; while he justly insists, that all our evidence for any matter of fact, which lies beyond the testimony of sense or memory, is derived entirely from the relation of cause and effect; that we have no other idea of this relation than that of two objects, which have been frequently conjoined together; that we have no argument to convince us, that objects, which have, in our experience, been frequently conjoined, will likewise, in other instances, be conjoined in the same manner; and that nothing leads us to this inference but custom or a certain instinct of our nature; which it is indeed difficult to resist, but which, like other instincts, may be fallacious and deceitful. ." (E 12.22)

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What is the Sceptic's Point?

■ Hume's response is to stress that such "Pyrrhonian" scepticism is pointless:

"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. ... It is true; so fatal an event is very little to be dreaded. Nature is always too strong for principle." (*E* 12.23)

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Why Rely on Custom?

As in the Treatise, Hume thinks that practical scepticism is pre-empted by our animal nature:

[Belief arising from inference through custom] "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 or understanding is able, either to produce, or to prevent." (*E* 5.8, cf. *T* 1.4.1.7)

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Two Types of Mitigated Scepticism

- The first type leads to "more modesty and reserve", less confidence in our opinions and "prejudice against antagonists".
- The second type whose basis Hume does not make entirely clear, involves:

"the limitation of our enquiries to such subjects as are best adapted to the narrow capacity of human understanding. ... avoiding all distant and high enquiries, confin[ing] itself to common life, and to such subjects as fall under daily practice and experience". (*E* 12.25)

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Opposing Superstition

- Now Hume has an answer to "superstition":
 - Arguments from miracle reports (Enquiry 10) rely on the inductive strength of testimony; but if properly weighed, the evidence of induction – that such things don't actually happen in practice – points against miracles more than for them.
 - The Design Argument (Enquiry 11) relies on analogy (which is a weaker form of induction), but if properly analysed, the analogies in favour of theism are weak and others are stronger.
 - Hume's Fork rules out a priori metaphysics, such as the Cosmological Argument (see E 12.28-29)

The Whimsical Condition of Mankind

■ The Pyrrhonian arguments, in the end,

"can have no other tendency than to 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, that may be raised against them." (*E* 12.23)

But this can have a beneficial effect, by leading us to "a more mitigated scepticism or academical philosophy" (E 12.24).

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Virtuous Bootstrapping

- If custom is indeed our primary belief-forming mechanism, is irresistible (at least in "obvious" cases), vital to our survival and daily life, and if the sceptic can give no strong consequent argument against it, then:
 - We can use induction to refine our own use of induction: to discover what more sophisticated methods actually work in practice (e.g. confining our enquiries to some subjects rather than others).
 - We can appeal to "methodological consistency" to check bogus uses of induction.

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From the *Treatise* to the *Enquiry*

- In the first Enquiry, several sources of radical sceptical doubt are dropped, in particular:
 - The extreme sceptical argument of 1.4.1;
 - The claim that identity over time (either of objects or selves) is incompatible with change;
 - The Separability Principle;
 - Scepticism about personal identity.
- The Enquiry thus finds a coherent way of defending inductive science – what the Treatise had called the "general and more establish'd properties of the imagination" (T 1.4.7.7).

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