


# Oxford Lectures on Hume's Central Principles, 2011

## Hume's Central Principles

1. *Historical Background, and His "Chief Argument"*

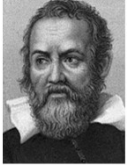



Peter Millican  
Hertford College, Oxford

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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

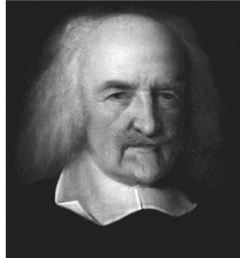
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## Mechanism and Scepticism

- 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.


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## 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 mechanics.
  - A perfect science would be demonstrative.

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## *Leviathan* (1651)

- Hobbes is most famous as a political philosopher, arguing that in the state of nature, the life of man is "solitary, poore, nasty, brutish and short".
- 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".

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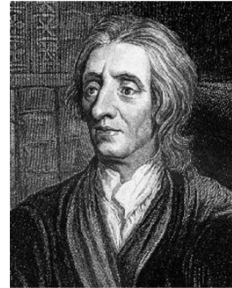
## Opposing Materialism

- The main *argument* against Hobbit 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



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

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## Two Kinds of Empiricism

- Distinguish *concept-empiricism*:  
All our ideas derive from experience  
(i.e. 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)
- Hobbes and Locke are both concept-empiricists, not knowledge-empiricists.

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## Hume's Copy Principle

- Hume's version of Locke's *concept-empiricism* is expressed in what is commonly known as his Copy Principle:  
*"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)
- At *Enquiry* 2.9 n. 1, Hume suggests that this is really the essence of Locke's empiricist doctrine that there are no innate ideas.

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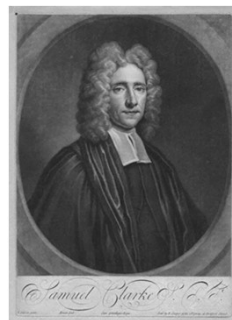
## Locke's Cosmological Argument

- "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."

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## Samuel Clarke



- Most prominent advocate of Newtonian philosophy.
- Had vigorous debate with Anthony Collins (a well-known "freethinker", who argued that human behaviour is subject to *necessity*, just as much as the actions of matter.

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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."

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## Hume on Locke and Clarke

- On his deathbed, Hume told Boswell that he "never had entertained any belief in Religion since he began to read Locke and Clarke"
- Both Locke and Clarke advocated the Cosmological Argument, and insisted that matter cannot give rise to thought.
- *Treatise* 1.3.3 – which disputes the basis of the Causal Maxim – identifies both Locke and Clarke by name (in footnotes).

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## Hume at Chirside

- Though born in Edinburgh, Hume spent most of his early years in the village of Chirside, near Berwick in the Scottish borders.

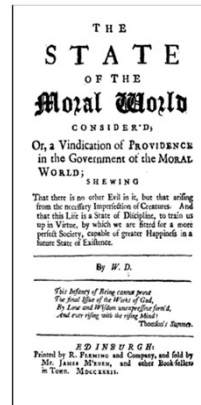


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## William Dudgeon

- Tenant of Lennel Hill farm near Coldstream.
- 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).

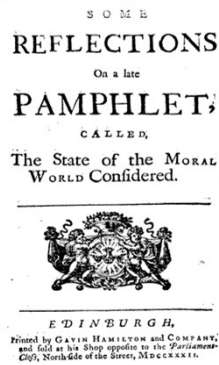


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## Andrew Baxter

- Tutor for the Hays of Drumelzier at Duns Castle.
- 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).

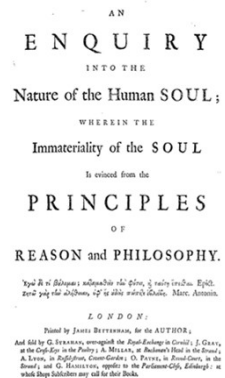


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## Baxter's Enquiry

- 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.



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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.

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## Henry Home, Lord Kames



- Lawyer and distant cousin of David Hume.
- Corresponded with Andrew Baxter, criticising his Newtonian theory.
- Especially interested in causation and the Causal Maxim (that every change has a cause).

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## 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 Ill: 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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## Thinking about "Of Power"

- Locke's empiricism naturally raises the issue of the origin of the idea of causal necessity, central to the Cosmological Argument.
- Locke's "Of Power" (Essay II xxi) gives an inadequate account: Hume sees this, and attempts to remedy the omission.
- Locke's chapter focuses also on Free Will. Hume sees his account as supporting Collins against Clarke (a debate very familiar to him through Dudgeon, Baxter, Desmaizeaux).

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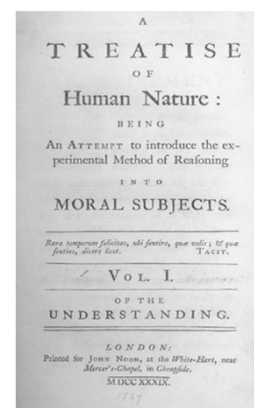
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## Hume's "Chief Argument"

- Hume's *Abstract of the Treatise* (1740) identifies his extended discussion of induction, belief, causation and free will as "the Chief Argument" of the 1739 *Treatise*.
- But in the *Treatise* itself, the search for the idea of *cause* is the primary theme of this discussion.

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## The Idea of Cause

- In *Treatise* 1.3.2, Hume identifies 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).
- In *Treatise* 1.3.6, he finds *constant conjunction*, rather than perception of any necessary connexion, to be the key to inductive inference.
- At *Treatise* 1.3.14, he finally sets out to identify the impression from which the idea of necessary connexion is copied.

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## Synonymy and Definition

- Hume begins his quest for the impression:  
"I begin with observing that the terms of *efficacy*, *agency*, *power*, *force*, *energy*, *necessity*, *connexion*, and *productive quality*, are all nearly synonymous; 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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## Refuting Locke

- Locke's account of the origin of the idea of power or necessity is quickly refuted:  
"I believe the most general and most popular explication of this matter, is to say, that finding from experience, that there are several new productions in matter, such as the motions and variations of body, and concluding that there must somewhere be a power capable of producing them, we arrive at last by this reasoning at the idea of power and efficacy. But to be convinc'd that this explication is more popular than philosophical, we need but reflect on two very obvious principles. First, That reason alone can never give rise to any original idea, ..." (*T* 1.3.14.5)

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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; cf. the theory of "general or abstract ideas" of 1.1.7).

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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)

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## Necessity in the Mind, not in Objects

"[customary inference] is the essence of necessity. ... necessity is something, that exists in the mind, not in objects; nor is it possible for us ever to form the most distant idea of it, consider'd as a quality in bodies. ... necessity is nothing but that determination of the thought to pass from causes to effects and from effects to causes, according to their experienc'd union." (*T* 1.3.14.22)

"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)

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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 ..."

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## Of Liberty and Necessity

- Hume's conclusion about our idea of necessity is directly applied to the debate:

"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)

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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)

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- 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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## An Integrated Vision

- Hume's argument about causation refutes:

- The Cosmological Argument;
- Anti-materialist arguments;
- The Free Will Theodicy (i.e. appealing to free-will to solve to the Problem of Evil);
- Aprioristic causal metaphysics in general.

- At the same time it supports:


- Empirical, causal science: the *only* way to establish anything about "matters of fact";
- Extension of causal science into moral realm.

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## Hume's Central Principles



2. Overview,  
*Hume's Theory of Ideas,  
and his Faculty Psychology*

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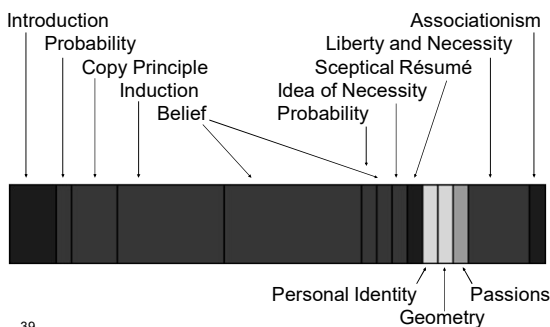
## An Integrated Vision

- We have seen how Hume's investigation of the notion of causation brought together his interest in the *Cosmological Argument for God's existence*, *free will* and the *Problem of Evil*, his opposition to aprioristic metaphysics (e.g. concerning *mind and matter*), and his view of *human beings as part of the natural world*, amenable to empirical investigation.
- Although there is historical evidence of his early interest in these things, they come together most clearly not in the *Treatise* itself (January 1739), but in the *Abstract* (autumn 1739) and the *Enquiry concerning Human Understanding* (1748) ...

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## The Topics of the *Abstract*



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## Overview (1)

- Starts from a theory of mental contents: *impressions* (sensations or feelings) and *ideas* (thoughts).
- Empiricist: *all ideas are derived from impressions* (and hence from experience) – Hume's Copy Principle.
- Assumes a theory of *faculties* (reason, the senses, imagination etc.), in terms of which he expresses many of his main results.

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## Overview (2)

- Aims to deny that we have *rational insight* into things (and also – in his moral theory - that we are governed by *reason*).
- Relations of ideas / matters of fact
  - roughly analytic / synthetic
  - (but in the *Treatise* based on a theory of different kinds of relation)
- Demonstrative / probable reasoning
  - roughly deductive / inductive

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## Overview (3)

- Induction presupposes an assumption of uniformity over time, which cannot be founded on any form of rational evidence.
- Instead, induction is founded on "custom", an instinctive extrapolation from observed to unobserved.
- When we find ourselves making customary inferences, we ascribe necessity (and hence causation) to the objects concerned.

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## Overview (4)

- Customary inferences provide our only impression of necessary connexion: there is no other possible impression source.
- So that is where our idea of necessity is copied from, and we can have no other understanding of necessity.
- Customary inference is as applicable to the human as to the physical world. Hence this must involve the same idea of necessity.

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## Overview (5)

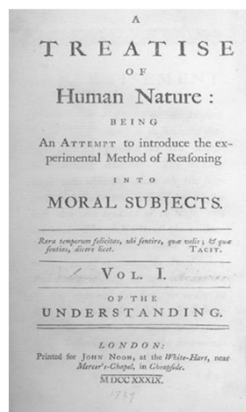
- “*a priori*, any thing may produce any thing”
- “all objects, which are found to be constantly conjoined, are upon that account only to be regarded as causes and effects .”  
(T 1.4.5.30-2)
- This empirical, causal, deterministic science involves systematic searching for underlying correlations, “reducing principles ... to a greater simplicity”. (E 4.12)

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## 2(a)

### The Theory of Ideas



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## 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 such as feelings.

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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 or smelling a flower) or a *feeling* (e.g. being angry, or feeling pain);
  - 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*.)

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## 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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## 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).

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## 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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## 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 *defined* as being our more (and less) vivacious perceptions.

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## The “Liberty of the Imagination”

- Some of our 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 *put ideas together* in new ways:  
gold + mountain = golden mountain;  
banapple = shape of banana + taste of apple.
- See T 1.1.3.4 on this “second principle”. At T 1.1.7.3 it seems to turn into the far stronger (and questionable) Separability Principle.

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## Simple and Complex Ideas

- At *Treatise* 1.1.1.2, Hume divides all ideas and impressions into *simple* and *complex*:  
“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 *Enquiry*, Hume only hints at this distinction (at 2.6 and 7.4) – perhaps he is doubtful whether every idea is absolutely simple or complex?

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## The Origin of Ideas

- Book I of John Locke's *Essay concerning Human Understanding* (1690) argues against “innate” ideas and principles.
- Book II then aims to explain how all our various ideas can arise from experience.
- So Locke is an *empiricist* about ideas.
- Descartes and other *rationalists* claimed that we have innate ideas (e.g. of God, or of extension), yielding a priori knowledge.

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## The Copy Principle

- Hume's version of Locke's empiricism is expressed in what is commonly known as his Copy Principle:

*"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)

- Although *Enquiry* 2.9 presents this as a weapon against *bogus* ideas, Hume actually uses it almost exclusively to *clarify* ideas, by tracing them to their impression-source.

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## Problems with the Copy Principle

- Hume's arguments for the Principle seem rather weak:
  - The first (T 1.1.1.5) just asserts that there are no counter-examples – but his opponent will deny this!
  - The second (T 1.1.1.9) claims that people without particular senses cannot have corresponding ideas: plausible, no doubt, but *how can he prove it?*
  - The missing shade of blue (T 1.1.1.10) is at least an awkward complication.
  - Overall, one gets the impression that Hume takes idea-empiricism somewhat uncritically for granted.

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## 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 makes the mind very passive – its only activity seems to be to *perceive* impressions and ideas ...

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## The Mental Stage

- The mind is seen 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 Copy Principle and Imagism

- If ideas are copies of impressions, then Hume must take our ideas to be something like mental images (not necessarily visual).
- This crude assimilation of thinking to the having of mental images seriously infects some of Hume's philosophy, for example:
  - His discussions of mental Separability (treating it as rather like manipulating a raster image).
  - His impoverished view of the faculty of *reflection*, which ought to encompass awareness not only of feelings and desires, but also of mental activity such as *doubting*, *reasoning*, and *inferring*.

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## 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)
- 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)

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## Locke on the Association of Ideas

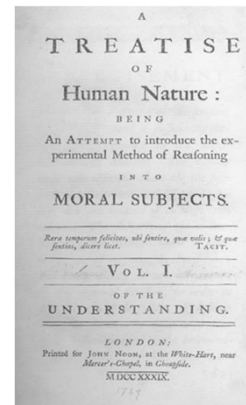
- Hume will appeal to the association of ideas with great enthusiasm, but Locke's attitude to it had been far less positive:  
" [3] this sort of Madness ... [4] this ... Weakness to which all Men are ... liable, ... a Taint which ... universally infects Mankind ... [5] ... there is [a] Connexion of *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 ..."  
(*Essay II xxxiii 3-5*)

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2(b)

## Hume's Faculty Psychology



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## Humean Faculties

- At T 1.1.2, Hume distinguishes between impressions of *sensation* and *reflection*.
- At T 1.1.3, he distinguishes between ideas of the *memory* and *imagination*.
- Talk of mental faculties (*reason, senses, imagination* etc.) will continue to play a major role in the *Treatise*. Indeed some of Hume's most important and famous results are expressed in these terms ...

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## 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)
- "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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## Faculties in the *Treatise* (1)

- *The (external) Senses*  
Present impressions to the mind (thus creating ideas which copy them).
- *Reflection*  
An *internal sense*, by which we inwardly sense our own mental state.
- *Memory*  
Replays ideas vivaciously, reflecting their original order.

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## Faculties in the *Treatise* (2)

- *Imagination (or the Fancy)*  
Replays ideas less vivaciously, with freedom to transpose and mix them.
- *Reason (or the Understanding)*  
The overall cognitive faculty: discovers and judges truth and falsehood.
- *Will*  
The conative faculty: forms intentions in response to desires and passions.

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## Hutcheson on the Faculties

"Writers on these Subjects should remember the common Division 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. The Will, 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 Sensus, and the *Appetitus Sensitivus*, in which they place the particular Passions: the former answers to the Understanding, and the latter to the Will."

*Illustrations upon the Moral Sense* (1742), SB §450

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## Hume on Reason and Understanding

- Hume, like Hutcheson, implicitly identifies Reason with "the understanding", e.g.:  
"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)  
– See also *T* 1.3.6.4, 1.4.1.1, 1.4.2.46, 1.4.2.57, 1.4.7.7, and compare 2.2.7.6 n. with 1.3.9.19 n.

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## Hume on Reason as Cognition

- "Reason is the discovery of truth or falshood."  
(*T* 3.1.1.9)
- "That Faculty, by which we discern Truth and Falshood ... the Understanding"  
(*E* 1.14, note in 1748/1750 editions)
- "... 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, 1.21.

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## 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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## Locke's Scepticism about Faculties

- Locke ridicules the language of faculties as a source of philosophical error, and declares himself inclined to forego it completely were it not that faculty words are so much in fashion that "It looks like too much affectation wholly to lay them by" (*Essay* II xxi 17-20).
- When we refer to man's "understanding", all we can properly mean is that man has a power to understand.
- It is a serious mistake to speak of our faculties "as so many distinct Agents".
- Hume makes similar dismissive remarks about "occult" faculty language (*T* 1.4.3.10, *D* 4.12).

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## Hume's Central Principles

### 3. Hume's Logic: Relations, and Forms of Argument



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## The Heart of Hume's Philosophy

- The core of Hume's "Chief Argument" is in *Treatise* Book 1 Part 3, the longest part of the entire *Treatise*.
- *Treatise* 1.3 is entitled "Of Knowledge and Probability", however:
  - Only *T* 1.3.1 deals with "Knowledge" (a word Hume uses in a strict sense, as meaning *deductive* knowledge).
  - Apart from the *title* of *T* 1.3.2, "probability" doesn't make an entrance until *T* 1.3.6.4.

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## The Theme of Causation

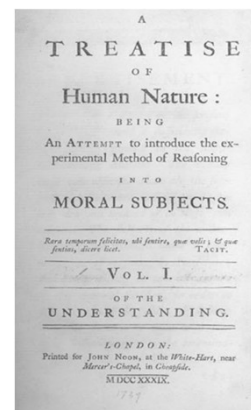
- The real unifying theme of *Treatise* 1.3 is *causation* and causal reasoning. But Hume's route to his account is circuitous!
  - He starts (in *T* 1.3.1-2) by developing his taxonomy of relations into a theory of mental operations and of demonstrability;
  - He then focuses on the relation of causation, seeking the key impression;
  - On the way to this, he discusses the Causal Maxim, induction, probability ...

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## 3(a)

## Hume's Theory of Relations



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## Introducing Relations

- Having explained the association of ideas, Hume calls it "a kind of **ATTRACTION**, which in the mental world" has remarkable effects like gravity in the physical world (*T* 1.1.4.6).
- One of these effects is to produce complex ideas by uniting simples together; these "may be divided into **RELATIONS**, **MODES**, and **SUBSTANCES**" (*T* 1.1.4.7).
- This provides a link into the main chapter on relations, *T* 1.1.5, though as we shall see, *T* 1.3.1 is also very important.

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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 associational tendencies – resemblance, contiguity, causation.
- But when philosophers talk about "relations", they include *any kind of arbitrary* "subject of comparison". Hume develops Locke's taxonomy of such "philosophical relations".

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## Locke on the Types of Relation (1)

- Locke (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)
- The last of these categories includes both what Hume calls “degrees in quality” and “proportions in quantity or number”.

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## Locke on the Types of Relation (2)

- Locke then says there are “infinite others” of relations (II xxviii 1), notably:
  - “Natural Relations” such as “Father and Son, Brothers ... Country-men” (II xxviii 2)
  - “Instituted, or Voluntary” relations such as “General ..., Citizen, ... Patron and Client, ... Constable, or Dictator” (II xxviii 3)
  - Various moral relations (II xxviii 4-16)
- Note that Locke does not mean the same by “natural relation” as Hume.

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## Locke to Hume on Relations (1)

- Locke’s “diversity” apparently becomes Hume’s “contrariety”.
- Hume’s “resemblance” – which he says enters into all relations – fulfils a similar role to Locke’s ‘agreement’ (II xxviii 19).
- Locke doesn’t treat “resemblance” as a single type, but recognises myriad forms of resemblance (e.g. “Country-men, i.e. those who were born in the same Country”).

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## Locke to Hume on Relations (2)

- Hume seems deliberately to subsume Locke’s “natural”, “instituted” and moral relations under cause and effect:
  - “... all the relations of blood depend upon cause and effect ...” (T 1.1.4.3)
  - “... the relation of cause and effect ... we may observe to be the source of all the relations of interest and duty, by which men influence each other in society, and are plac’d in the ties of government and subordination.” (T 1.1.4.5)

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## Locke and Hume on Relations

<i>[Locke doesn't speak of "agreement" as a relation]</i>	Resemblance <i>[a relation, but also involved in all relations]</i>
Cause and effect	Cause and effect
Natural, Instituted, Moral	
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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## 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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*Constant relations*      *Inconstant relations*

<b>Perception</b>	<u>Intuition</u>	<u>Sensory Perception</u>
	■ <i>resemblance</i>	■ <i>identity</i>
	■ <i>contrariety</i>	■ <i>situations in time and place</i>
	■ <i>degrees in quality</i>	
<b>Reasoning</b>	<u>Demonstration</u>	<u>Probability</u>
	■ <i>proportions in quantity and number</i>	■ <i>causation</i>

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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 argue 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 lots of “analytic” 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.

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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 of the objects themselves (independently of ideas about their situation etc.)*

(See Bennett 1971: 250-6 and 2001: 242-4 for the best published discussions of the issue)

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## Hume's Conceivability Principle

- Hume mostly relies not so much on his Dichotomy as on the *Conceivability Principle*:
  - “Tis an establish'd maxim in metaphysics, *That whatever the mind clearly conceives includes the idea of possible existence, or, in other words, that nothing we imagine is absolutely impossible.*” (T 1.2.2.8)
  - “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)

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## Hume's Fork

- In the *Enquiry*, Hume replaces his Dichotomy with a distinction amongst propositions
  - Relations of Ideas 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.
    - e.g. Pythagoras' Theorem. (E 4.1)
    - $3 \times 5 = \frac{1}{2} \times 30$ . (E 4.1)
    - All bachelors are unmarried.
  - The modern term is analytic (as understood e.g. by Ayer): "true in virtue of its meaning".

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## Matters of Fact

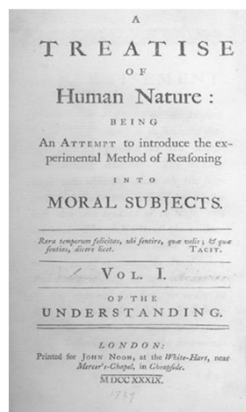
- Matters of Fact can't be known *a priori*, and their truth / falsity are equally conceivable:
  - e.g. The sun will rise tomorrow. (E 4.2)
  - The sun will not rise tomorrow. (E 4.2)
  - This pen will fall when released in air.
- Perhaps the closest modern term is synthetic: a proposition whose truth "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.

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3(b)

## Hume on Forms of Argument



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## 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" or *probable reasoning*.

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## Demonstrative and Probable

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

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## Probable/Factual Inference

- Consider:
 

Mars is red and round therefore Some round thing is coloured
--
- The premise and conclusion are matters of fact, so is this "reasoning concerning matter of fact"?
  - Is the inference merely "probable"? No!
  - Does it go beyond "relations of ideas"? No!
  - Does justifying the inference require any appeal to experience or to causal relations? No!
  - Hence Hume would have to count it as demonstrative.

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## Demonstration = Deduction?

- So deductive arguments – even those with matter of fact premises and conclusions – must count as “demonstrative” for Hume.
- But this is controversial, if view of passages such as the following:
  - “no matter of fact is capable of being demonstrated” (*T* 3.1.1.18);
  - “It seems to me, that the only objects of the abstract sciences or of demonstration are quantity and number ...” (*E* 12.27, cf. *T* 1.3.1.5).

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## 'No Matter of Fact is Demonstrable'

- Suppose I claim to *demonstrate* that all crows are black.
  - Ridiculous, you would say! How can I possibly demonstrate such a contingent claim?
  - “Well”, I reply, “here’s my demonstration”:
    1. All crows are birds.
    2. All birds are black. $\therefore$  All crows are black.
  - That’s a demonstrative argument, isn’t it?

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## What is Demonstrated?

- The crows argument is indeed *demonstrative*, but that isn’t enough to make it a *demonstration of its conclusion*.
- To demonstrate *Q from P* is not the same as demonstrating *Q tout court*. The latter requires that the argument’s premises are known with certainty to be true.
- Hume denies that any matter of fact can be *demonstrated (tout court)*. He nowhere denies that one matter of fact can be demonstrated *from another*.

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## Is Demonstrative Reasoning Limited to Mathematics?

- “There remain, therefore, algebra and arithmetic 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)
- But 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

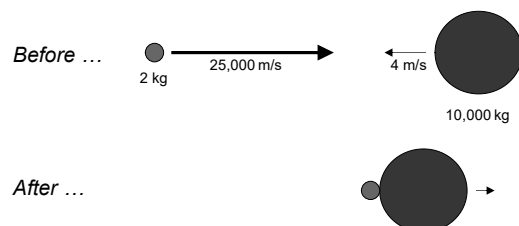
- Hume’s most explicit discussion of “mixed mathematics” is in *Enquiry* Section IV:

“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; 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)

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- 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 abstract reasonings in the world could never lead us one step towards the knowledge of it." (E 4.13)

"Mathematics, indeed, 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." (T 2.3.3.2)

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## Demonstration = Deduction

- Hume clearly does accept the possibility of demonstrative argument in applied mathematics; hence he cannot be restricting demonstration to the *a priori*.
- The natural interpretation of Humean "demonstration" – especially in the light of Hume's Fork – is therefore "deduction" (in the informal sense: an argument whose premises guarantee its conclusion).

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## Locke versus Hume on "Probable Reasoning"

- Although Hume follows Locke in taking for granted a general distinction between demonstrative [deductive] and probable [inductive] reasoning, the two differ profoundly regarding the nature of the latter.
- Locke sees the operation of reasoning – both demonstrative and probable – as involving the *perception* of evidential connexions.
- Hume denies any such perception in the case of probable [inductive] inference.

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## Locke on Reason as *Perception* (1)

"we ... looke for noe greater certainty then what our eyes can afford us, the whole evidence of this assurance being noe more then what the word *Demonstration* doth naturally import; which is to shew any thing as it is & make it be perceived soe that in truth what we come to know this way is not by prooffe but intuition, all the prooffe that is used in this way of knowledg being noe thing else but shewing men how they shall see right ... without using arguments to perswade them that they are soe"

(Draft B of Locke's *Essay*, 1671, p.153)

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## Locke on Reason as *Perception* (2)

"*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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## "Nothing But a Species of Sensation"

- Contrast Locke's view of probable reasoning with what Hume at T 1.3.8.12:

"Thus all probable reasoning is nothing but a species of sensation. 'Tis not solely in poetry and music, we must follow our taste and sentiment, but likewise in philosophy. 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."

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## Hume's Central Principles



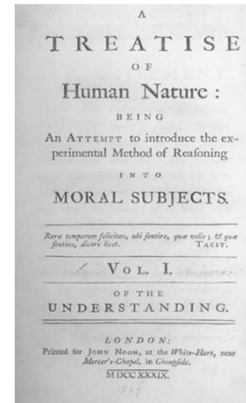
### 4. Hume on Induction

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## 4(a)

### From the Idea of Causation to Induction



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## The Idea of Causation

- To understand reasoning to the unobserved (i.e. *probable* reasoning, though Hume has not yet used the 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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## 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 many perceptions have no 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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## 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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## 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 Causal Maxim

- The first field is 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)

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## Leading Up to Induction

- *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. *Thirdly*, The nature and qualities of that idea."

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## "Of the impressions of the senses and memory"

- The title of *Treatise* 1.3.5 seems odd, since memory presents *ideas*, not *impressions*.
- But 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)

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## Recap – the road to *Treatise* 1.3.6

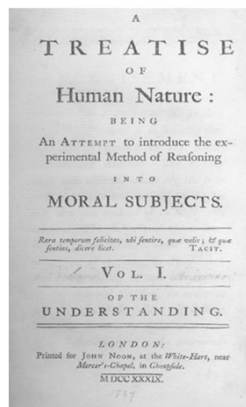
- Recall Hume's aim here:
  - He is seeking to understand our idea of necessary connexion (cf. T 1.3.2.11).
  - This leads him to ask "Why we conclude, that ... particular causes must necessarily have ... particular effects, and why we form an inference from one to another?" (T 1.3.3.9).
  - The key part of this process is "the inference from the impression to the idea" (cf. T 1.3.5.1); call this "causal inference" for short.

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## 4(b)

### The Argument concerning Induction



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## The Famous Argument (×3)

- *Treatise* 1.3.6 contains the famous argument concerning induction, though Hume doesn't seem entirely to appreciate its significance – it is mainly a staging post in his search for the origin and nature of our idea of causation.
- 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.

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## Streamlining the Argument

- In the *Treatise*, Hume's focus is on *causal* inference "from the impression to the idea".
- In the *Abstract* and *Enquiry*, he broadens it to ask about the foundation of "all reasonings concerning *matter of fact*" (A 8):  
"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)
- His first point is that all such [inductive] inference depends on *causal* relations (A 8, E 4.4).

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## Causal Inference Is Not A Priori (1)

- In the *Treatise*, Hume starts from causal inference, arguing that this 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 not obvious] 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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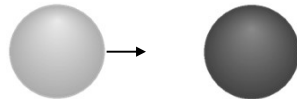
## A Thought Experiment

- In the *Abstract* and *Enquiry*, Hume imagines Adam, newly created by God, trying to envisage the effect of a billiard-ball collision:



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



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## Causal Inference Is Not A Priori (2)

- Here also Hume's subsequent argument is stronger, 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. ..." (E 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, when we least expected it ... 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 [impression of] cause *A* to [idea of] effect *B* is founded on "past *experience*, and ... remembrance of ... *constant conjunction*" (*T* 1.3.6.4),  
"the next question is, whether experience produces the idea [of the effect *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 it can't be reason.

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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: 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 it must be based on this principle.
  - But later: "probability is founded on the presumption of a resemblance ..." (*T* 1.3.6.7)

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## UP in the *Enquiry*

- In the *Enquiry* 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 (cf. also *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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## 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 typically we don't).
- Rather, in making an inductive inference, we *manifest* the assumption of UP, in basing our inferential behaviour on past experience.
  - So inferring from past to future is *ipso facto* treating "the past [as a] rule for the future" (cf. *E* 4.21)
  - Hence the question arises: *can this assumption be founded on reason*, or is there some other explanation for why we make it?

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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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- Both forms of argument are quickly 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] 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 those objects, of which we have had experience, and those, of which we have had note; and therefore 'tis impossible this presumption can arise from probability." (T 1.3.6.7)

(Hume first argues, at T 1.3.6.6-7, that probable argument is causal and hence dependent on UP.)

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## Enquiry More Complete

- At T 1.3.6.4, Hume assumes that *demonstration* and *probability* are the only possible foundations for UP; but in the *Enquiry*, he also 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)

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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)

"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)

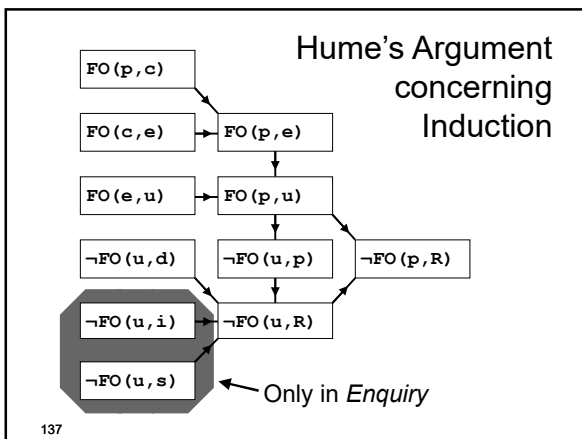
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## Argument Summary (in 2 Slides)

- The essential logic of the argument can be represented using the "founded on" relation (FO), together with:
 

p Probable inference (to the unobserved)	d Demonstration
c Causal reasoning	i Intuition
e (Reasoning from) Experience	s Sensation
u Uniformity Principle	
R Reason	

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## Four "Kinds of Evidence" (Again)

- So the *Enquiry* argument implicitly reasons:
 
$$\neg FO(u,s) \ \& \ \neg FO(u,i) \ \& \ \neg FO(u,d) \ \& \ \neg FO(u,p) \ \rightarrow \ \neg FO(u,R)$$

*If UP isn't founded on sensation, intuition, demonstration or probable inference, then it isn't founded on Reason.*
- Compare this passage from Hume's *Letter from a Gentleman* (1745):
 

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

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## Debating Hume's Argument

- A catalogue of recent interpretations:
  - Flew 1961, Stove 1965/73: deductivism;
  - Stroud 1977: extreme scepticism;
  - Beauchamp & Mappes 1975, Winters 1979, B'p & Rosenberg 1981, Arnold 1983, Broughton 1983, Craig 1987, Baier 1991: refuting deductivism (hence "anti-deductivist");
  - Millican 1995/2002: anti-perceptual-insight;
  - Garrett 1997: not founded on *reasoning*;
  - Owen 1999: anti-stepwise-inference;
  - Millican 2011: not founded on *cognition*.

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## What Does "Reason" Mean?

- By far the most significant distinction between these interpretations is in terms of their view of "reason" or "the understanding":
  - Flew, Stove: deductive reasoning only
  - Stroud: traditional "self-conscious" conception
  - Beauchamp *et al.*: deductivist – but rejected
  - Millican 1995: perceptual insight – but rejected
  - Garrett: reason is the *reasoning* faculty
  - Owen: intermediate steps – but rejected
  - Millican 2011: reason is the *cognitive* faculty

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## Inductive Inferences as "Reason"

"... with regard to *reason* ... The only conclusion we can draw from the existence of one thing to that of another, is by means of the relation of cause and effect ..." (T 1.4.2.47)

"... reason, in a strict and philosophical sense, can have an influence on our conduct ... by informing us of the existence of something which is a proper object of [a passion]; or when it discovers the connexion of causes and effects, so as to afford us means of exerting any passion." (T 3.1.1.12)

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## Reducing the Field

- Hume is not an extreme, indiscriminating sceptic but a keen advocate of inductive science. So unless Hume is radically inconsistent, Flew/Stove/Stroud must be wrong.
- Ruling out a probable foundation for UP would be otiose if "reason" were deductivist, so Beauchamp *et al.* must also be wrong.
- Millican 1995 and Owen face the objection that Hume does not apparently *reject* the view of reason operative in his argument.

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## Agreeing with Garrett ...

- Don Garrett and I now agree on a fair number of points:
  - Hume's "reason" is not *ambiguous* (a point on which he stood alone for many years);
  - Hume sees no obligation to prove our faculties reliable a priori (rejecting the burden of proof implied by "antecedent" scepticism – E 12.3);
  - The logic of his argument is incompatible with most previous interpretations (most obviously the deductivist and anti-deductivist).

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## ... Up to a Point

- However the key disagreement remains the nature of Humean "reason":
  - Garrett says "for Hume [as for Locke], reason is the faculty of reasoning: of making inferences, or providing, appreciating, and being moved by arguments." (1997, p. 27)
  - I think "reason" is the overall *cognitive* faculty, just another word for "the understanding" or the "intellectual faculties".
- This is discussed in detail in my 2011 paper, "Hume's 'Scepticism' about Induction".

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## "Reason" and "Reasoning"

- We tend to hear "reasoning", "proof" and "argument" as implying *stepwise* inference or *ratiocination*, but this is anachronistic.
- Johnson in 1756 defines "argument" as:
  - "A reason alleged for or against any thing."
- A *non-discursive* sense of "reason" is:
  - "Argument; ground of persuasion, motive."
- And the first sense of "proof" is:
  - "Evidence; testimony; convincing token."

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## "Deduction" and "Ratiocination"

- For *stepwise* inference, Johnson prefers the terms "deduction" and "ratiocination". He gives as *discursive* senses of "reason":
  - "The power by which man deduces one proposition from another, or proceeds from premises to consequences."
  - "Ratiocination; discursive power."
- The same two terms are used for contrast when defining "intuition" and "intuitive".

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## Hume's Usage

- Hume, like Johnson, refers to "deductions" and "ratiocination" in contexts where *stepwise* argument is clearly intended:
  - T 1.3.14.2, E 5.22, M 1.4; E 4.23, E 12.17
- He also refers to "arguments" "inference" and "proof" that are "intuitive":
  - T 1.3.14.35, T 2.3.2.2, E 4.21, E 8.22 n. 18
- Hume's own theory of inductive "reasoning" implies that it is not typically *stepwise*!

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## Hume's Conclusion (Garrett 1997)

"Hume . . . [is] making a specific claim, within cognitive psychology, about the relation between our tendency to make inductive inferences and our inferential/argumentative faculty: he is arguing that we do not adopt induction on the basis of recognising an *argument* for its reliability . . . this does not mean that inductive inferences are not themselves *instances* of argumentation or reasoning; . . . His point is rather that they are reasonings that are not themselves produced by any piece of higher level reasoning" (pp. 91-2)

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## What About Intuition?

- One objection to Garrett's position (Millican 1998, p. 151) is that in the *Enquiry*, Hume also rules out *intuition* (which is not *reasoning* in Garrett's sense) as the basis of UP.
- He responded in our *Hume Studies* debate:

"Hume . . . in the *Enquiry* . . . expands the famous conclusion to rule out any 'reasoning or process of the understanding,' thereby eliminating such non-inferential processes of the understanding as intuition . . ." (1998, p. 184)

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## Reason = The Understanding

- But Hume implicitly identifies reason with the understanding in many places, e.g.:

"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)

  - See also T 1.3.6.4, 1.4.1.1, 1.4.2.46, 1.4.2.57, 1.4.7.7, and compare 2.2.7.6 n. with 1.3.9.19 n.

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## A Sign of Convergence... ?

- Garrett has now acknowledged that Hume equates "reason" and "the understanding":  
 "I grant that Hume roughly interchanges the terms 'reason' and 'understanding' ... The understanding generally involves the intuition of self-evident truths as well as reasoning ... Peter thinks reason for Hume *blew up* to cover everything that the Lockean understanding did, while I think that in Hume the understanding shrank down to encompass only what reason did, plus intuition." (2011, pp. 18-19)
- To me, this shrinking is historically implausible.

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## Epistemology or Cognitive Science?

- Garrett's 1997 formulation has a tension:
  - He sees the argument as *cognitive psychology* rather than *epistemology*: concerning the *mechanism* of inductive inference rather than whether or not it can be *justified*.
  - Yet he takes Hume's conclusion to be that "we do not adopt induction on the basis of recognising *an argument for its reliability*, for ... there *is* no argument ... that could have this effect. ... we can literally 'give no reason' for our making inductive inferences" (1997, p. 92).

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## Hume's Conclusion (Garrett 2002)

"Hume ... [is] making a specific claim, within cognitive psychology, about the underlying causal mechanism that gives rise to inductive inference: namely, that it is not itself dependent on any reasoning or inference. ... this does not mean that inductive inferences are not themselves *instances* of argumentation or reasoning; ... His point is rather that they are reasonings which are not themselves *caused* by any piece of reasoning (including, of course, themselves)." (p. 333)

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## Induction in General, or Individual?

- He also made an important clarification:  
 "Millican understandably infers that on my interpretation 'it is only the *general practice* of induction that fails to be determined by reason, and each of our *particular* inductive inferences is itself an instance of the operation of our reason.' ... The crucial distinction for Hume, however, is ... between an inference being an *instance* of reasoning and the same inference being *caused by* (another instance of) reasoning." (1998, pp. 180-1)

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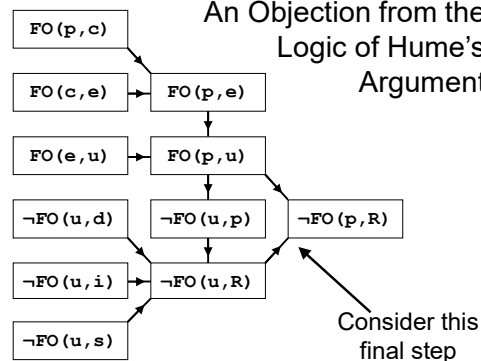
## The Inheritance Problem

- Here the problem for Garrett is to give a plausible precise account of Hume's claim.
- If the claim concerns every individual inductive inference, and is a claim about the *psychological mechanism* involved in such inference (rather than about *epistemological* foundation), then it is unclear why lack of *ratiocinative causation* should be "inherited" by a *later* argument that starts from a previously-taken-as-established *lemma*.

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## An Objection from the Logic of Hume's Argument



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## An Implausible Non-Sequitur

- The final step of Hume's argument makes no sense on Garrett's interpretation:
  - UP plays a role in the causation of probable inference;
  - UP is not itself caused by a process of ratiocination;
  - Therefore probable inference is not caused by any process of ratiocination.
- This is a complete *non-sequitur*. Probable inference could be caused by a process of ratiocination that involves UP!

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## Further Logical Objections

- If Hume were only concerned to prove that *ratiocination* plays no role in the *causation* of induction (i.e. probable inference), then:
  - His argument would be incomplete, because he does nothing to rule out the possibility that induction could be caused by *bad* argument.
  - Much of his *Enquiry* argument would be redundant, because he would have no need to refute the idea that induction is founded on intuition or sensation.

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## Arguments Can Be Bad!

- Hume quite often refers to arguments that are fallacious, for example:
  - “can any thing be imagin'd more absurd and contradictory than this reasoning?” (*T* 1.2.4.11)
  - “Few have been able to withstand the seeming evidence of this argument; and yet nothing ... is more easy than to refute it.” (*T* 1.4.5.30)
  - “I shall not leave it to Philo ... to point out the weakness of this metaphysical reasoning. ... I shall myself ... show the fallacy of it.” (*D* 9.4)

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## Induction from the Causal Maxim

- Hume refutes various attempted demonstrations of the Causal Maxim, at *T* 1.3.3.4-8.
- But such a would-be demonstration could very naturally be used to support induction, on the ground that if every change must have a cause, then the *ultimate* causal laws must be consistent over time.
- It is hard to see how Garrett's interpretation of Hume's argument can rule this out.

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## Price on the Causal Maxim and Induction

- Richard Price, in *A Review of the Principal Questions in Morals* (1758), argued like this, taking the Causal Maxim as intuitive:

“The conviction produced by experience is built on the same principle ... Because we see intuitively, that there being some reason or cause of this *constancy of event*, it must be derived from causes regularly and constantly operating ... And the more frequently and uninterruptedly we knew this had happened, the stronger would be our expectation of its happening again” (p. 40 n.)

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## “Reason is ...”

- “Reason is the discovery of truth or falshood.” (*T* 3.1.1.9)
- “That Faculty, by which we discern Truth and Falshood ... the Understanding” (*E* 1.14, note in 1748/1750 editions)
- “... 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, 1.21.

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## "Reason" as Our Cognitive Faculty

- We should take Hume at his word: by "reason" he means our cognitive powers – our discernment or discovery of what is the case, truth or falsehood.
- These powers are generally taken to include memory, sensation, intuition, demonstration, and probable inference.
- Hume shows that none of these can provide a basis for claiming to discern the ongoing truth of the Uniformity Principle.

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## Induction as Part of Reason ...

- On this interpretation, induction remains included amongst the operations of reason, even after Hume has famously concluded that it is "not founded on reason".
- This rejects the view of Beauchamp, Winters, Baier, Millican (1995) and Owen (etc.) that Hume's "reason" is ambiguous, switching to a less demanding notion following T 1.3.6.
- It agrees with Garrett in rejecting any crude ambiguity (but on a different basis).

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## ... But Not "Founded on Reason"

- How, then, can induction be *part of* reason but yet "not *founded on* reason"?
- What Hume seems to be doing in the case of induction, the external world, and morality is performing a deep analysis of what the relevant human power involves – identifying the conceptual steps that are implicit in its activity – *and then using faculty language ("founded on reason", "founded on the imagination" etc.) to express those underlying steps.*

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## A Crucial Step ...

- In performing such analysis, Hume focuses on one particularly vital step or weak link:
  - When investigating induction, he focuses on the crucial step of extrapolation from observed to unobserved which, in effect, supposes a Uniformity Principle between them.
  - In the case of the external world, he focuses on the crucial step that takes us from interrupted sense impressions to our "assurance of the continu'd and distinct existence of body".

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## ... Which is "Imagination-Like"

- When the underlying step turns out to be "imagination-like" – involving processes such as the communication of vivacity through association or the creation of "fictions" (or, least respectably, the operation of "whimsies and prejudices") – Hume describes that step as owing to "the imagination", *even if the step concerned is located, within our cognitive economy, as part of the operation of our reasoning or our senses.*

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## Reason and the Imagination

- Thus the conclusion of Hume's famous argument concerning induction comes to something like this:

Our cognitive process of inductive inference crucially depends on a sub-process which is *imagination-like* (based on associative extrapolation) rather than *reason-like* (based on apprehension of what is the case).
- Note that this does not prevent induction's retaining its status as a part of our reason.

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## Hume's Central Principles



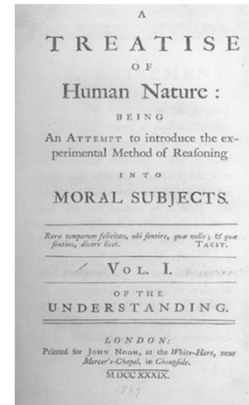
### 5. Hume on Causal Necessity

Peter Millican  
Hertford College, Oxford

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## 5(a)

### "Of the Idea of Necessary Connexion"



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## Reminder 1: The Idea of Cause

- In *Treatise* 1.3.2, Hume identifies 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.
- In the remainder of 1.3.6, he argues that causal reasoning is founded on *custom*.

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## Reminder 2: The Copy Principle

- According to (what is commonly called) Hume's *Copy Principle* (*T* 1.1.1.7), all our simple ideas are copied from impressions.
- This 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.
- See 1.3.14.1 for a preview of the argument.

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## Synonymy and Definition

- Hume begins his quest for the impression:  
"I begin with observing that the terms of *efficacy*, *agency*, *power*, *force*, *energy*, *necessity*, *connexion*, and *productive quality*, are all nearly synonymous; 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 assume that "necessity", "power", "force" etc. are virtual synonyms?
- Why does he assume that the idea of "necessary connexion" is *simple*, and hence cannot be explicitly defined?
- **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, 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, E 8.13)

- This too is explained if the key idea is not *necessity*, but rather *consequentiality*: a *force* or *agency* 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 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?
- Suggested explanation: The key result 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 is wrong to suggest we can get the idea of power from "new productions in matter" (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, which we have not covered in these lectures).

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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)

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## 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 (i.e. the operation of custom).
- 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).

- Stroud and others take the impression to be a *feeling* of compulsion that accompanies the operation of customary inference.
- But Hume's own arguments seem to rule out the possibility that mere feelings could be the source of the idea (T 1.3.14.12, E 7.15 n. 13).

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## Is "Determination of the Mind" an *Impression*?

- Why does Hume equate *inference* from A to B – a transition of thought from A to B, with *another*, third, "perception"?

"This determination is the only effect of the resemblance; and therefore must be the same with power or efficacy, whose idea is deriv'd from the resemblance. ... 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)

- Hume needs an "impression" to satisfy his Copy Principle, but this may be misleading ...

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## Reflexive Awareness of Inference

- *Consequentiality* may be the key here ...
- *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 should be taken literally: the source of the idea is the *reflexive awareness of making causal inference*, and not a feeling.
- This awareness is very dubiously an "impression"; here Hume's theory of the mind is far too crude in limiting our awareness to ideas and impressions.

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## Necessity in the Mind, not in Objects

"[customary inference] is the essence of necessity. ... necessity is something, that exists in the mind, not in objects; nor is it possible for us ever to form the most distant idea of it, consider'd as a quality in bodies. ... necessity is nothing but that determination of the thought to pass from causes to effects and from effects to causes, according to their experienc'd union." (T 1.3.14.22)

"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)

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## Hume's Anti-Realism

- Hume is not saying that there is some kind of full-blooded "thick" necessity that applies only to events in the mind. Rather ...
- We find ourselves inferring from A to B, and this consequential relation is all that we can understand by "necessity". *We can't even make sense* of any more "full-blooded" necessity.
- This seems incredible to us because "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).

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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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## ... 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)

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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)

- There is an objective and a subjective side to our idea of power or necessity; hence two definitions of "cause".

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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".
- 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*.

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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 ..."

(T 1.3.14.31)

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## The Confused Vulgar Idea of Power

- "as we *feel* a customary connexion ... we transfer that feeling to the objects; as nothing is more usual than to apply to external objects every internal sensation, which they occasion" (E 7.29 n. 17)
- At T 1.3.14.25 n. 32, referring to 1.4.5.13, this is compared to our propensity to objectify taste impressions: "All this absurdity proceeds from our endeavouring to bestow a place on what is utterly incapable of it".
- Necessity involves "the same propensity" (T 1.3.14.25).
- "the sentiment of *nisus* or endeavour" also "enters very much into" the vulgar idea (E 7.15 n. 13, 7.29 n. 17).

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## The More Precise Humean Idea

- "'tis probable, that these expressions do here lose their true meaning by being *wrong apply'd*, than that they never have any meaning" (T 1.3.14.14).
- Hume takes his analysis and definitions to *vindicate* a more precise idea of power, by revealing that there is a *bona fide* impression from which it is derived.
- He seems to be saying we should apply that idea according to the first definition (constant conjunction), and understand its application as implying willingness to draw inferences accordingly (as in the second definition).
- This is fairly close to a kind of "quasi-realism" (Simon Blackburn's term), parallel with Hume's moral theory.

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## “Corollaries” of the Definitions

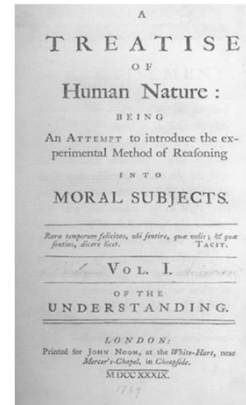
- “All causes are of the same kind ... For the same reason we must reject the distinction betwixt *cause* and *occasion* ... If constant conjunction be imply'd in what we call occasion, 'tis a real cause. If not, 'tis no relation at all ...” (T 1.3.14.32)
- “there is but one kind of *necessity* ... and ... 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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5(b)

## The New Hume Debate



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## The “New Hume”

- Hume has generally been read as denying the existence of any causal “power” or “necessity” going beyond his two definitions (i.e. any upper-case Causation or “thick connexions”).
- The “New Hume” is the view of John Wright, Edward Craig, Galen Strawson and others that Hume is instead a “Causal Realist”.
- Their most persuasive argument: *Hume's texts show him to be taking causation, causal power and causal necessity very seriously ...*

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## “Sceptical Realism”

- John Wright coined the term “Sceptical Realism” for this point of view:
  - Realism: Causation in things goes beyond (possibly complex functional) relations of regular succession and inference, involving a full-blooded necessity *which, if we knew it, would license a priori inference.*
  - Sceptical: In so far as Causation goes beyond what is captured by Hume's two definitions, it cannot be known or understood.

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## Hume's Advocacy of Causal Science

- Hume seems in general to have a very positive attitude towards causal science:
  - a) He says that causation is the basis of all empirical inference;
  - b) He proposes “rules by which to judge of causes and effects”;
  - c) He talks of “secret powers”;
  - d) He advocates a search for hidden causes underlying inconstant phenomena.

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## (a) The Basis of Empirical Inference

- “The only connexion or relation of objects, which can lead us beyond the immediate impressions of our memory and senses, is that of cause and effect ...” (T 1.3.6.7)
- “'Tis evident, that all reasonings concerning *matter of fact* are founded on the relation of cause and effect” (A 8)
- “All reasonings concerning matter of fact seem to be founded on the relation of Cause and Effect.” (E 4.4, cf. E 7.29)

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## (b) The Rules of *Treatise* 1.3.15

- "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" (*T* 1.3.15.11)

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## (c) Hume's Talk of "Secret Powers"

- Most prominent in *Enquiry* 4-5:
  - "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);

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## Necessity as Essential to Causation

- "Power" is a term from the same family – derived from the same impression – as "necessity", which Hume sees as an essential part of our idea of causation:
  - "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).
  - "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)

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## (d) The Search for Hidden Causes

- "philosophers, observing, that, almost in every part of nature, there is contained a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find, that it is at least possible the contrariety of events may ... proceed ... from the secret operation of contrary causes. ... they remark, that, upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual opposition." (*E* 8.13, copied from *T* 1.3.12.5)

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## Causal Science and Causal Realism

- We have seen that Hume indeed takes causal science very seriously. All science must be causal; causal relations can be established by rules; explanation involves reference to secret powers; and we should search for hidden causes.
- But the presumption that this implies Causal Realism that goes beyond the two definitions can be challenged ...

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## Hume's Anti-Realism: an Initial Case

1. Berkeley's example proves that a positive attitude to science need not imply Causal Realism.
2. Hume's argument concerning the origin of the idea of necessary connexion, in *Treatise* 1.3.14 and *Enquiry* 7, is naturally read as implying that he is anti-Realist about "thick" powers.
3. Hume's Conceivability Principle seems hard to square with a prioristic necessities in nature.
4. An important footnote connects the power references in *Enquiry* 4-5 with the apparently anti-Realist argument of *Enquiry* 7, in such a way as to undermine their apparent force.

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## 1. Berkeley's Instrumentalism

- ... the difference there is betwixt natural philosophers and other men, with regard to their knowledge of the *phenomena*, ... consists, not in an exacter knowledge of the efficient cause that produces them, for that can be no other than the *will of a spirit*, but only in a greater largeness of comprehension, whereby analogies, harmonies, and agreements are discovered in the works of Nature, and the particular effects explained, that is, reduced to general rules ... which rules grounded on the analogy, and uniformness observed in the production of natural effects (*Principles* i 105)

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## Science as Simplification

- "the utmost effort of human reason is, to reduce the principles, productive of natural phaenomena, to a greater simplicity, and to resolve the many particular effects into a few general causes, by means of reasonings from analogy, experience, and observation. But as to the causes of these general causes, we should in vain attempt their discovery ... and we may esteem ourselves sufficiently happy, if, by accurate enquiry and reasoning, we can trace up the particular phaenomena to, or near to, ... general principles." (*E* 4.12, cf. *T* intro 8)

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## 2. An Argument for Anti-Realism

- 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 anti-Realist implication is stated.
- The discussion culminates with two *definitions* of "cause", incorporating this anti-Realism.

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## 3. The Conceivability Principle

- Hume's principle that "whatever we *conceive* is possible, at least in a metaphysical sense" (*A* 11) implies a sharp distinction between causal necessity, and "absolute" or "metaphysical" modality.
- He thus repeatedly insists that a priori, we cannot possibly put limits on what causal relations will obtain (e.g. *T* 1.3.15.1, 1.4.5.30; *E* 4.9, 12.29).
- But if he were prepared to countenance a "hidden" objective necessity – of a genuine metaphysical kind – 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.

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## 4. Kames and a Footnote

- Kames (1751) quoted Hume's references to powers in the *Enquiry* (at 4.16) against him, as evidence of inconsistency; they knew each other well and swapped manuscripts prior to publication.
- In 1750 Hume added a footnote to *E* 4.16:
  - "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."

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## Quantitative Forces

- In the *Enquiry*, Hume is clear that mechanics involves *forces*: theoretical entities that can be quantified and enter into equations describing objects' behaviour. (e.g. *E* 4.12-13)
- "Force" is in the same family as "power" etc.
- This, rather than Causal Realism, explains the *Enquiry's* prominent "power" language.
- *E* 7.25n and *E* 7.29n both suggest an attitude to such forces corresponding exactly to the anti-realist spirit of *Enquiry* 7. Forces are to be treated *instrumentally* (cf. Newton and Berkeley).

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## Why Two Definitions?

- The argument of T 1.3.14 and E 7 ends, notoriously, with two definitions of cause:
  - 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*.
- These don't coincide: constant conjunctions can be unseen, and we can (mistakenly) infer when the conjunctions are inconstant.

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- To make sense of the definitions, we should not assume that they are intended to specify necessary and sufficient conditions.
- Hume's conception of *meaning*, associated with his Copy Principle, suggests a different view. The meaning of causal necessity can only be understood through the impression from which its idea is derived: *reflexive awareness of our own inferential behaviour* in response to observed constant conjunctions.
- The second definition, accordingly, specifies a paradigm case in which we experience this impression and thus can acquire the idea.

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- Nothing in Hume's theory requires that, *having once acquired the idea*, we must restrict its application to those paradigm cases that characteristically generate it.
- Indeed his advocacy of “rules by which to judge of causes and effects” etc. implies that he must think we can go beyond these cases by *systematising* our application of the idea (cf. his discussion of the “system of realities” at T 1.3.9.3-5).
- Accordingly the two definitions can be seen as *complementary* rather than conflicting. The second identifies the relevant idea; the first specifies the criterion for applying it.

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- There is a parallel case in Hume's treatment of *virtue or personal merit* in the *Moral Enquiry*. Here again he gives two definitions:
  - “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*; ...” (M Appendix 1.10)
- Again we have a characteristic idea, whose application is then to be systematised.

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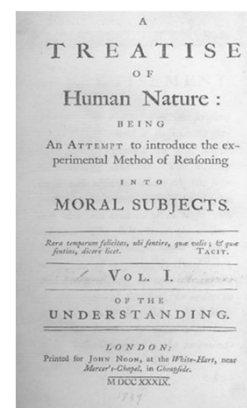
- This understanding of the paired definitions tells strongly in an anti-Realist direction. For it suggests that the system of causes, like the system of virtues, is essentially being read *into* the world rather than being read *off* it.
- We thus have a process of systematisation in which our natural judgement, refined and applied more systematically in accordance with the relevant rules, “raises, in a manner, a new creation”, by “gilding or staining natural objects with the colours, borrowed from internal sentiment” (M Appendix 1.21).

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5(c)

## The Point of Hume's Analysis of Causation



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## Hume's Use of his Two Definitions

- 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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## 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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## 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)

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- 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 and physical realms depends on taking our understanding of necessary connexion to be completely exhausted by the two factors of constant conjunction and customary inference.
- These two factors can be shown to apply in the moral realm, and he insists that we can't even *ascribe* any further necessity to matter:

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"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)

- Here Hume is arguing against the Causal Realist, who thinks that "we have an idea of something else in the actions of matter".

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## "A New Definition of Necessity"

- Even more explicitly than with "Of the Immateriality of the Soul", Hume portrays his argument here as turning 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 are understood as specifying "the very essence of necessity" (T 2.3.1.10, 2.3.2.2).

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## Anti-Realism supporting realism

- 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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## Reconstructing Hume's Vision

- The "chief argument" of the *Treatise* (as summarised in the *Abstract* of 1740) is almost entirely devoted to causation etc. – *Treatise* 1.3 is the central part of the work.
- Applying the Copy Principle to the idea of necessary connexion reveals the nature of causal necessity, settling fundamental issues about causation in the moral sphere, and eliminating aprioristic causal metaphysics.

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## Hume on Locke and Clarke

(from Lecture 1)

- On his deathbed, Hume told Boswell that he "never had entertained any belief in Religion since he began to read Locke and Clarke"
- Both Locke and Clarke advocated the *Cosmological Argument*, and insisted that *matter cannot give rise to thought*.
- *Treatise* 1.3.3 – which disputes the basis of the Causal Maxim – identifies both Locke and Clarke by name (in footnotes).

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## Thinking about "Of Power"

(from Lecture 1)

- Locke's empiricism naturally raises the issue of the origin of the idea of causal necessity, central to the *Cosmological Argument*.
- Locke's "Of Power" (*Essay* II xxi) gives an inadequate account: Hume sees this, and attempts to remedy the omission.
- Locke's chapter focuses also on Free Will. Hume sees his account as supporting Collins against Clarke (a debate very familiar to him through Dudgeon, Baxter, Desmaizeaux).

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## An Integrated Vision

(from Lecture 1)

- Hume's argument about causation refutes:
  - The *Cosmological Argument*;
  - Anti-materialist arguments;
  - The Free Will Theodicy (i.e. appealing to free-will to solve to the Problem of Evil);
  - Aprioristic causal metaphysics in general.
- At the same time it supports:
  - Empirical, causal science: the *only* way to establish anything about "matters of fact";
  - Extension of causal science into moral realm.

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## Hume's Central Principles



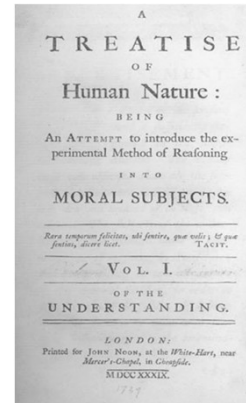
### 6. Hume on the External World

Peter Millican  
Hertford College, Oxford

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## 6(a)

### Of Scepticism with Regard to the Senses



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## 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 *distinctness*, 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]"

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## 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.”

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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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## Turning to the Imagination

- With the senses and reason eliminated, our belief in “the continu'd and distinct existence of body ... must be entirely owing to the IMAGINATION” (T 1.4.2.14).
- Most of the rest of the section is devoted to an explanation of how the imagination generates the belief.
- At T 1.4.2.18-19, Hume identifies *constancy* and *coherence* as the key factors that induce us to judge perceptions as external to us.

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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 what is now known as Inference to the Best Explanation (IBE), whereby we infer the existence of unperceived objects to give a coherent explanation of our observations.

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## 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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“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 give us, to suppose them the same; and ... the very essence of belief consists in the force and vivacity of the conception.”

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## 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 supposing a continu'd existence, *T* 1.4.2.37-40
  - Explaining the force and vivacity of conception, which constitutes belief, *T* 1.4.2.41-42

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## 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”.
- But one might expect the scientific explanation of the vulgar belief – given that it is not a *rational* explanation – to be *subcognitive*, and hence not expressible in vulgar terms.

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## 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 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.

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## The Philosophical System

- Philosophers realise that perceptions are not independent, but they are very reluctant (or 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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## 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)

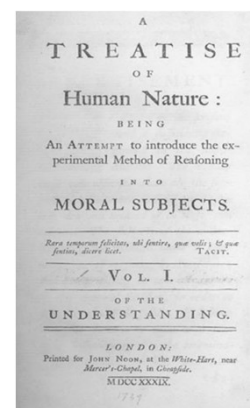
"'Tis impossible upon any system to defend either our understanding [cf. T 1.4.1] or senses; and we but expose them farther when we endeavour to justify them in that manner. As the sceptical doubt arises naturally from a profound and intense reflection on those subjects, it aways increases, the farther 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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## Of the Antient and Modern Philosophies



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## 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” allowed themselves – far too easily and naively – to be seduced.

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## False Simplicity and Identity

- “The most judicious philosophers” (cf. 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)

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## 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:

“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* [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

- 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 1.4.3.10)

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## Sympathies, Antipathies etc.

“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 than 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. ... what excuse shall we find to justify our philosophers in so signal a weakness?” (T 1.4.3.11)

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## Imaginative Principles, Good and Bad

- Hume has criticised the Aristotelians for founding 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 (e.g. the *Treatise* subtitle) – is itself founded on custom, a principle of the imagination.
- 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 others disreputable ...

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## Of the Modern Philosophy

- Modern (Lockean) philosophy claims to be based 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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## 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 possess'd 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, ultimately from coloured or solid simples.

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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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## Reason Against the Senses

- Hume elaborates this argument further from *T* 1.4.4.10-14, and then concludes:

“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 persuade us of the continu'd and independent existence of body.”
- 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.

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# Oxford Lectures on Hume's Central Principles, 2011

## Hume's Central Principles



7. *Scepticism with Regard to Reason, the Soul and the Self*

Peter Millican  
Hertford College, Oxford

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## Hume's Sceptical Crises

- In *Treatise* 1.4.2, we saw Hume's initial confident statement of belief in the external world leading ultimately to sceptical distress.
- *Treatise* 1.4.4 likewise concludes that "there is a direct and total opposition betwixt our reason and our senses".
- But *Treatise* 1.4.1 and 1.4.6 – on "Scepticism with regard to reason" and "Personal identity" – are if anything even more disturbing ...

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## The Path to *Treatise* 1.4.7

- Hume's sceptical discussions culminate in *Treatise* 1.4.7, in a complex discussion where he alludes in turn to his earlier sections and draws them together, but it remains very unclear whether he reaches any satisfactory resolution.
- Part of the difficulty is the first-personal stream-of-thought nature of Hume's prose, in which his views seem to change in real time (just as we saw in *T* 1.4.2).

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## The Structure of Book 1 Part 4

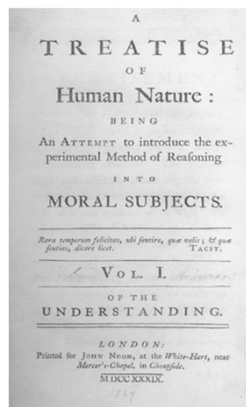
- Section 1: "Of scepticism with regard to reason"
- Section 2: "Of scepticism with regard to the senses" (i.e. the nature of our ideas and beliefs about the external world)
- Section 3: "Of the antient philosophy"
- Section 4: "Of the modern philosophy" (i.e. primary and secondary qualities etc.)
- Section 5: "Of the immateriality of the soul" (argues that matter could cause thought)
- Section 6: "Of personal identity"
- Section 7: "Conclusion of this book"

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## Of Scepticism with Regard to Reason



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## From Knowledge to Probability

- *Treatise* 1.4.1 contains a famous – and very radical – sceptical argument which, however, seems problematic.
- Its first stage argues that, even if we assume that in "demonstrative sciences 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 argument, we need 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 in 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 fidelity of our faculties.” (T 1.4.1.6)

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## Iterative Weakening

- The second reflex judgement can only weaken the evidence left by the first:

“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.” (T 1.4.1.6)

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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 possess'd 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 uncontrollable necessity has determin'd us to judge as well as to breathe and feel; ...” (T 1.4.1.7)

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## 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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## Hume's Intention Here

“My intention then in displaying so carefully the 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 cogitative part of our natures.* ... I have prov'd, that ... 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 destroy itself, and in every case terminate in a total suspence of judgment.” (T 1.4.1.8)

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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

- Later, at T 1.4.7.7, Hume will note the significance of our being saved "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*.

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## Is Hume's Argument Strong?

- The T 1.4.1 argument seems dubious:
  - Suppose I make a mathematical judgement.
  - Experience suggests to me that I go wrong about 1% of the time in such judgements, so I adjust my credence to 99%.
  - Then it occurs to me that my estimate of 1% 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 99%*?

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## Why Iterate?

- Some defenders of Hume admit that reduction is not forced, but suggest the iteration implies a "spreading" of the probability estimate, so it becomes completely non-specific.
- But the case for iteration also seems weak. My appropriate credence in a mathematical judgement should depend on my reliability [and hence remembered track record] in judging *mathematics*, not on my reliability in judging my reliability in judging ... (etc.).

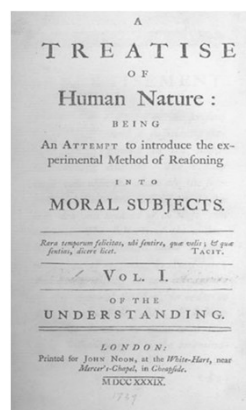
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## 7(b) Of the Immateriality of the Soul

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## 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). The notion is condemned as meaningless.

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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 is referenced by the footnote at 1.3.14.25 n. 32.

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## A Spinozistic Parody

- From *T* 1.4.5.17-28, Hume parodies the 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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## Defending Materialism

(from Lecture 1)

- 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)

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- 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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## The 1.4.5 Dilemma

- Hume starts paragraph 1.4.5.31 with a dilemma, before arguing for its second horn in the remainder of the paragraph:
  - “There seems only this dilemma left us ... either to assert, that nothing can be the cause of another, but where the mind can perceive the connexion in its idea of the objects: Or to maintain, that all objects, which we find constantly conjoin'd, are upon that account to be regarded as causes or effects.” (*T* 1.4.5.31)

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## Applying the Definition of Cause

- Thus at the end of *Treatise* 1.4.5 – just as in the discussion of “Liberty and Necessity” which is to come in 2.3.1 and 2.3.2 – Hume is applying his (first) definition of cause in terms of constant conjunction.
- These are *positive* (rather than sceptical) implications of his definition: they *vindicate* the application of causation to mental phenomena.
- *Treatise* 1.3.14 has thus served the purpose of supporting materialism and determinism.

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## A Puzzling Conclusion

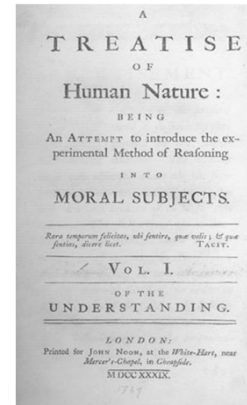
- The final paragraph of *Treatise* 1.4.5 starts by emphasising Hume's key lesson (cf. *T* 1.3.15.1) that causes and effects can be known only by experience, since *whatever we can imagine, is possible* from an a priori point of view.
- However the last two sentences refer to "the immortality of the 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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## 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).
- 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 possess 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", based on our tendency to be seduced by an easy associative transition of ideas.

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## Confusion and Absurdity

- 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."

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## 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 tells 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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## 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" (T 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).

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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 expressed 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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## 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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## What is Hume's Problem?

- The most popular speculation is that Hume's difficulty is a 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.

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# Oxford Lectures on Hume's Central Principles, 2011

## Hume's Central Principles



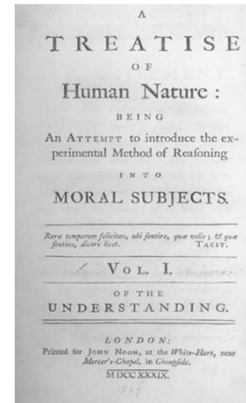
8. Conclusion: Scepticism in the *Treatise* and the *Enquiry*

Peter Millican  
Hertford College, Oxford

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8(a)

*Treatise* 1.4.7



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## “Conclusion of This Book”

- *Treatise* 1.4.7 is another major puzzle for Hume interpreters, presented as a dynamic sequence of thoughts on the position in which he 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 the continued existence of matter (*T* 1.4.7.4).
- The analysis of causation in *T* 1.3.14 also shows our thoughts about it to be deeply confused (*T* 1.4.7.5).

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## A “Dangerous Dilemma”

- So how far should we allow ourselves to be seduced by the imagination?  
“For 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 if we resolve to reject all “trivial suggestions of the fancy”, we will have no answer to the radical scepticism of *T* 1.4.1. So it seems that we have “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 a metaphysical have little or no influence upon us? ...” (*T* 1.4.7.7-8)

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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, environ’d with the deepest darkness, ...” (*T* 1.4.7.8)

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## Carelessness and Inattention Again

"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)

- Recall how at the end of T 1.4.2, Hume appealed to "carelessness and in-attention".

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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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## The Title Principle

- Don Garrett sees the resolution to all these sceptical quandaries as lying in what he calls Hume's "Title Principle" (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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## Curiosity

- Hume the 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

- Hume seems to be aware that "philosophy" (much what we would call *science*) is not the only method of reasoning that is "lively and mixes itself with some propensity" ...

"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 all this looks unconvincing – how, given all his sceptical arguments, can Hume claim any rational ground for saying that philosophy is safer or more agreeable than superstition?
- After all, he has argued that philosophy contradicts itself, and we avoid this only by our "trivial" inability to follow the reasoning!
- He is reduced to the lame observation that "the errors in religion are dangerous; those in philosophy only ridiculous" (T 1.4.7.13).

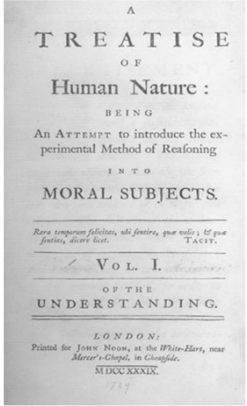
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8(b)

An Ambiguity  
in the  
Imagination



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The image shows the title page of David Hume's 'A Treatise of Human Nature'. The text on the page reads: 'A TREATISE OF Human Nature: BEING AN ATTEMPT to introduce the experimental Method of Reasoning INTO MORAL SUBJECTS. Rare temporibus felicitas, aliis fastidia, quae velle, et quae fatiunt, docet. TACTI. VOL. I. OF THE UNDERSTANDING. LONDON: Printed for James Noon, at the Black-Hart, near St. Martin's-Church, in Covent-Garden. MDCCLXXXIX. 1739'.

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A Better Solution?

- Elsewhere in the *Treatise*, Hume gives hints of what looks a more satisfactory approach to his sceptical problems, based on a preference for the *established* over the *trivial* operations of the “imagination”.
- But in *Treatise* 1.4.1 and 1.4.7, he is prevented from relying on this, when he concludes that only the trivial operations can save us from extreme scepticism.

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Imaginative Principles, Good and Bad  
*(from Lecture 6)*

- Hume has criticised the Aristotelians for founding 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 (e.g. the *Treatise* subtitle) – is itself founded on custom, a principle of the imagination.
- 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 others disreputable ...

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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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Two Senses of “Imagination”

- This same distinction informs a footnote inserted 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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Where the Footnote Belonged

- Had Hume thought of the footnote sooner, I believe he would have put it not at the end of the section, but after *T* 1.3.9.4:  
“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.”
- “offspring of the imagination” is the clue!

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## From the *Treatise* to the *Enquiry*

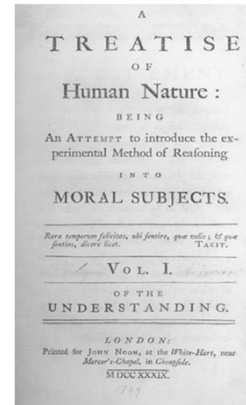
- In the *Enquiry concerning Human Understanding*, the total scepticism of T 1.4.1 makes no appearance; nor does the scepticism about personal identity of T 1.4.6; while scepticism about the external world is mentioned by muted.
- *Enquiry* 12 can be read as providing a *defence* of what the *Treatise* called the “established properties of the imagination.

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$$8(c) = 4(c)$$

## Hume's Positive Account of Induction



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## 'Reason is ...'

(from Lecture 4)

- 'Reason is the discovery of truth or falshood.' (T 3.1.1.9)
- 'That Faculty, by which we discern Truth and Falshood ... the Understanding' (E 1.14, note in 1748/1750 editions)
- '... 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, 1.21.

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## 'Reason' as Our Cognitive Faculty

(from Lecture 4)

- We should take Hume at his word: by 'reason' he means our cognitive powers – our discernment or discovery of what is the case, truth or falsehood.
- These powers are generally taken to include memory, sensation, intuition, demonstration, and probable inference:

"It is common for Philosophers to distinguish the Kinds of Evidence into *intuitive*, *demonstrative*, *sensible*, and *moral*" (LFG 22)

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## Induction as Part of Reason ...

(from Lecture 4)

- Hume shows that none of these can provide a basis for claiming to discern the ongoing truth of the Uniformity Principle.
- On this interpretation, induction remains included amongst the operations of reason, even after Hume has famously concluded that it is "not founded on reason".
- This rejects the view of Beauchamp, Winters, Baier, Millican (1995) and Owen (etc.) that Hume's "reason" is ambiguous.

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## ... But Not 'Founded on Reason'

(from Lecture 4)

- How, then, can induction be *part of* reason but yet 'not *founded* on reason'?
- What Hume seems to be doing in the case of induction, the external world, and morality is performing a deep analysis of what the relevant human power involves – identifying the conceptual steps that are implicit in its activity – *and then using faculty language ('founded on reason', 'founded on the imagination' etc.) to express those underlying steps.*

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## A Crucial Step ...

(from Lecture 4)

- In performing such analysis, Hume focuses on one particularly vital step or weak link:
  - When investigating induction, he focuses on the crucial step of extrapolation from observed to unobserved which, in effect, supposes a Uniformity Principle between them.
  - In the case of the external world, he focuses on the crucial step that takes us from interrupted sense impressions to our 'assurance of the continu'd and distinct existence of body'.

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## ... Which is 'Imagination-Like'

(from Lecture 4)

- When the underlying step turns out to be 'imagination-like' – involving processes such as the communication of vivacity through association or the creation of 'fictions' (or, least respectably, the operation of 'whimsies and prejudices') – Hume describes that step as owing to 'the imagination', *even if the step concerned is located, within our cognitive economy, as part of the operation of our reasoning or our senses.*

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## Reason and the Imagination

(from Lecture 4)

- Thus the conclusion of Hume's famous argument concerning induction comes to something like this:
  - Our cognitive process of inductive inference crucially depends on a sub-process which is *imagination-like* (based on associative extrapolation) rather than *reason-like* (based on apprehension of what is the case).
- Note that this does not prevent induction's retaining its status as a part of our reason.

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## Is This a Sceptical Position?

(from Lecture 4)

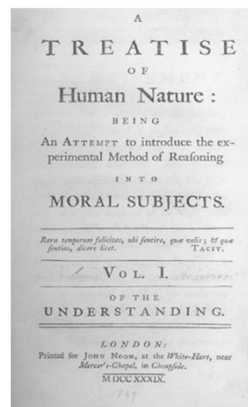
- How can a cognitive process be founded on a non-cognitive sub-process? Hume's deep insight is to see that this is indeed possible.
- The alternative would be cognition 'all the way down', terminating in direct *perception* of an evidential ground (as in Locke's theory).
- But we have no such cognition – if this were required, then we could not do it!
- So Hume's theory of inductive reason makes it possible for us!

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8(d) = 5(c)

The Point of  
Hume's  
Analysis of  
Causation



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## Hume's Use of his Two Definitions

(from Lecture 5)

- 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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## Causation and the Mind

(from Lecture 5)

- 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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## Of Liberty and Necessity

(from Lecture 5)

- Hume's argument that the same necessity is applicable to the moral and physical realms depends on taking our understanding of necessary connexion to be completely exhausted by the two factors of constant conjunction and customary inference.
- These two factors can be shown to apply in the moral realm, and he insists that we can't even *ascribe* any further necessity to matter:

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“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)

- Here Hume is arguing against the Causal Realist, who thinks that “we have an idea of something else in the actions of matter”.

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## “A New Definition of Necessity”

(from Lecture 5)

- Even more explicitly than with “Of the Immateriality of the Soul”, Hume portrays his argument here as turning 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 are understood as specifying “the very essence of necessity” (*T* 2.3.1.10, 2.3.2.2).

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## Anti-Realism supporting realism

(from Lecture 5)

- 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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- To read more about this perspective on Hume on induction, see:
  - “Is Hume an Inductive Sceptic?”, *Vox* 15 (summer 2011), pp. 9-13.
  - “Hume's ‘Scepticism’ about Induction”, forthcoming in Alan Bailey and Dan O'Brien, *The Continuum Companion to Hume* (Continuum, 2011), pp. 57-103.
- On causation, see:
  - “Hume, Causal Realism, and Causal Science”, *Mind* 118 (2009), pp. 647-712
- All at [www.davidhume.org](http://www.davidhume.org).

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