

# Humes Old and New

## Humes Old and New



*Four Fashionable Falsehoods,  
and One Unfashionable Truth*

Peter Millican  
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## II. The Good Old Hume



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## IV. The Treatise, the *Enquiry* ...



## Disillusion with the *Treatise* (1)

- January 1739: *Treatise* published
- June 1<sup>st</sup> 1739, letter to Kames:
  - 'My fondness for what I imagined new discoveries, made me overlook all common rules of prudence'
- October/November 1739: *Abstract* written
  - Completed by March 1740, the *Abstract* suggests a major rethink and restructuring, anticipating the *Enquiry* in many ways.

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## The Good Old Hume (1)

- Aims to undermine the notion of perceptual reason (e.g. Locke on probability).
- Relations of ideas / matters of fact
  - roughly analytic / synthetic
- Demonstrative / factual reasoning
  - roughly deductive / inductive
  - (but note that 'deductive' here must be understood in an informal sense: the premises guarantee the conclusion)

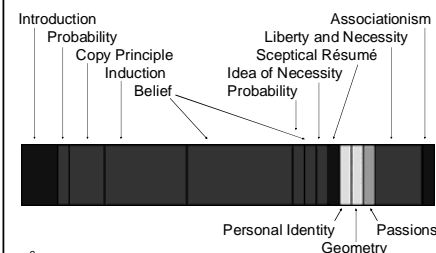
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## The Good Old Hume (2)

- Induction presupposes Uniformity Principle (UP), which cannot be founded on any form of rational evidence.
- Instead, induction is founded on 'custom', an instinctive extrapolation from observed to unobserved.
- All belief about the unobserved depends on this, so 'the wise man' should base his beliefs on consistency with experience.

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## The Topics of the *Abstract*



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## Disillusion with the *Treatise* (2)

- March 16<sup>th</sup> 1740, letter to Hutcheson:
  - 'I wait with some Impatience for a second Edition principally on Account of Alterations I intend to make in my Performance. ...
  - I am apt, in a cool hour, to suspect, in general, that most of my Reasonings will be more useful by furnishing Hints & exciting People's Curiosity than as containing any Principles that will augment the Stock of Knowledge that must pass to future Ages.'

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## The Good Old Hume (3)

- When we find ourselves making customary inferences, we ascribe necessity (and hence causation) to the objects concerned.
- All of our understanding of necessary connexion derives from this source. So we can have no other notion of necessity.
- Customary inference is as applicable to the human as to the physical world. Hence so is this same necessity.

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## The Good Old Hume (4)

- '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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## Disillusion with the *Treatise* (3)

- November 1740: *Book III* is published ... together with *Appendix*, confessing errors.
- May 21<sup>st</sup> 1745, *Letter from a Gentleman*:
  - 'I am indeed of Opinion, that the Author had better delayed the publishing of that Book; not on account of any dangerous Principles contained in it, but because on more mature Consideration he might have rendered it much less imperfect by further Corrections and Revisals. (L 33)'

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## Disillusion with the *Treatise* (4)

- Spring 1751, letter to Gilbert Elliot:
  - 'I give you my Advice against reading [the *Treatise*]. ... I was carry'd away by the Heat of Youth & Invention to publish too precipitately. So vast an Undertaking, plan'd before I was one and twenty, & compos'd before twenty five, must necessarily be very defective. I have repented my Haste a hundred, & a hundred times.'

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# Humes Old and New

## Disillusion with the *Treatise* (5)

- February 1754, letter to John Stewart:  
 'I shall acknowledge ... a very great Mistake ... viz my publishing at all the *Treatise* of human Nature, a Book, which pretended to innovate in all the sublimest Parts of Philosophy, & which I compos'd before I was five & twenty. Above all, the positive Air, which prevails in that Book, & which may be imputed to the Ardor of Youth, so much displeases me, that I have not Patience to review it.'

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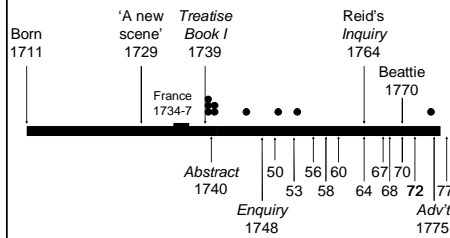
## Hume's 'Advertisement'

'... several writers [Reid, Beattie], who have honoured the Author's Philosophy with answers, have taken care to direct all their batteries against that juvenile work [the *Treatise*]. ... Henceforth, the Author desires, that the following Pieces [EHU, DOP, EPM, NHR] may alone be regarded as containing his philosophical sentiments and principles.'

*Enquiry*, 'Advertisement', 1775

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## A Timeline of Hume's Life



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## IV. ... and Induction



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# Humes Old and New

## The Four 'Kinds of Evidence'

- So the *Enquiry* argument implicitly reasons:  
 $\neg FO(u,s) \ \& \ \neg FO(u,i) \ \& \ \neg FO(u,d) \ \& \ \neg FO(u,f) \ \rightarrow \ \neg FO(u,R)$   
*If UP isn't founded on sensation, intuition, demonstration or factual 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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## V. 'Demonstrative' 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).
- For Locke, both involve rational *perception*.
- Hume takes over Locke's distinction
  - But the *Enquiry* talks of 'reasoning concerning relations of ideas' or 'concerning matter of fact'.

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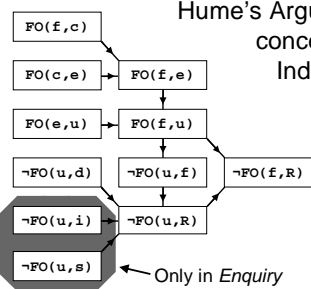
## Hume's Factual Inference

- 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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## Hume's Argument concerning Induction



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## Inferring Uniformity

- What ground can we give for extrapolating from observed to unobserved?
  - Sensory knowledge? No: what we perceive of objects gives us no insight into the basis of their powers, hence no reason to extrapolate.
  - Logical intuition? No.
  - Deductive reasoning? No: neither of these, because it's clear that extrapolation *could* fail, so it can't be a matter of pure logic.
  - Experience? No: that would be circular.

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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, because he says:
  - 'no matter of fact is capable of being demonstrated' (T3.1.1.18).
  - 'it seems to me, that the only objects of the abstract sciences or of demonstration are quantity and number ...' (E 12.27)

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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':
    - All crows are birds.
    - All birds are black.
    - ∴ All crows are black.
  - That's a demonstrative argument, isn't it?

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# Humes Old and New

## 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?

- 'It seems to me, that the only objects of the abstract sciences or of demonstration are quantity and number, and that all attempts to extend this more perfect species of knowledge beyond these bounds are mere sophistry and illusion.' (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 ...

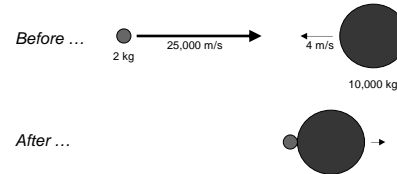
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## Hume on Applied Mathematics

- 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 increase 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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## VI. Epistemology of Induction



pp. 181-6

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# Humes Old and New

## A Sceptical Argument

- Hume's famous argument concerning induction ...
  - Starts by showing that all factual inference is founded on the Uniformity Principle;
  - Then goes on to undermine every possible rational foundation for UP;
  - Then draws from this the conclusion that factual inference has no foundation in reason.
- This way of arguing seems to imply that the conclusion has sceptical intent.

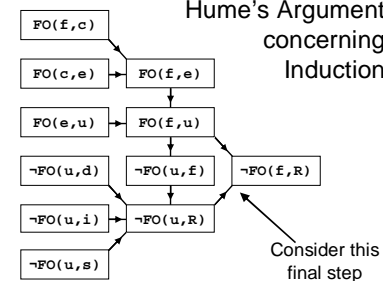
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## The 'No Argument' Interpretation

- Don Garrett and Harold Noonan
  - Garrett (1997) and Noonan (1999) claim that Hume is only concerned to show that inductive inferences are not *caused by argument*, i.e. that there is no *process of ratiocination* that leads us to infer inductively.
- David Owen
  - Owen (1999) claims that Hume is only ruling out *inference by intermediate steps*, what he understands by Lockean 'reason'.

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## Hume's Argument concerning Induction



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## Refuting Garrett, Noonan, and Owen

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

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## VII. Humean Externalism?



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## The Loeb/Beebee Manoeuvre

- Can this objection be side-stepped if Hume is taken to be presupposing that induction is justified, so his argument need consider only normatively appropriate causes?
- No, because this interpretation ignores 'the elephant in the room' - the *obviously* negative thrust of the argument (and of Hume's references to it: 'sceptical doubts', the sceptic has 'ample matter of triumph').

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### VIII. The New Hume



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### The 'New Hume'

- Hume has generally been read as denying the existence of any 'power' or 'necessity' in objects that goes beyond his two definitions.
- This would make him a 'regularity theorist', anti-realist about (capital 'C') 'Causation' or 'thick connexions' in objects.
- The 'New Hume' is the view of Wright, Craig, Strawson, Buckle, Kail and others that Hume is instead a 'Causal realist'.

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### The Copy Principle

- According to (what is commonly called) Hume's *Copy Principle* (T 1.1.1.6), 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 and *E 7*, he accordingly sets out to identify the impression from which the idea of necessity is copied.

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### Empiricism and Anti-Realism

- Hume identifies the source of the idea of necessity as the *customary inference of the mind* in response to *regular succession in the objects*, hence his two definitions.
- His Copy Principle has generally been assumed to go along with an empiricist *theory of meaning*: finding the impression-source of an idea gives its *meaning*.
- So 'necessity' has an anti-realist *meaning*.

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### 'Meaning' Quotations

- 'when we talk of any being ... as endow'd with a power or force ... when we speak of a necessary connexion ... in all these expressions, *so apply'd*, we have really no distinct meaning, and make use only of common words, without any clear and determinate ideas.' (T 1.3.14.14)
- 'either we have no idea at all of force and energy, and these words are altogether insignificant, or they can mean nothing but that determination of the thought ...' (A 26)
- 'We shall ... endeavour ... to fix, if possible, the precise meaning of these terms' (E 7.3)

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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 ...' (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)

'The necessity of any action, whether of matter or of mind, is not, properly speaking, a quality in the agent, but in any thinking or intelligent being, who may consider the action.' (E 8.22 n. 18)

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## Humes Old and New

### The Spreading of the Mind

- Hume is not saying that there is some kind of full-blooded Necessity, but that it applies only to events in the mind. Rather ...
- We find ourselves inferring from *A* to *B*, and then naturally attribute this consequential relation to the objects themselves, 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 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 talks of finding causal terms' *meaning* or *significance* (T 1.3.14.14 & 27, A 26, E 7.26 & 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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### The 'New Humean' Response

- 'New Humeans' claim that Hume's statements about 'meaning', 'definition' etc. should not be crudely interpreted in the modern *semantic* spirit, but should instead be understood *epistemologically*.
- Thus Peter Kail claims that we should 'view Hume's talk about "meaning" as meaning "acquaintance with", as opposed to "thinkable content"' (2001, p. 39)

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### Liberty and Necessity

- '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)
- Hume's solution to the problem of free will requires that his analysis of 'necessity' sets a limit to what we can coherently *think*. Only a *semantic*, anti-realist interpretation will do.

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### IX. Hume and Inductive Science



pp. 194-7

### Is Hume an Inductive Sceptic?

- Does Hume deny that inductive inference is founded on any sort of rational insight into why nature should be uniform?  
– YES!
- Does Hume think that all inferences about 'matter of fact' are equally hopeless, so that there's no rational ground for preferring one to another?  
– NO!

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# Hume Old and New

## Hume on Induction: Negative

- We can infer the unobserved only through causal reasoning, and we can learn about causes only through experience. But all learning from experience presupposes that the unobserved will resemble the observed.
- This presupposition (UP or the Uniformity Principle) cannot be given any rational support, either from intuition, sensation, demonstration or probable reasoning.

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## Hume on Induction: Positive

- We naturally assume that the unobserved resembles the observed (UP), and cannot help spontaneously making inferences on that basis: a process called *custom*.
- Since (a) *All* inference to the unobserved requires UP, and (b) We cannot help taking UP for granted anyway, *it seems that ...*
  - the appropriate reaction is to proceed on the basis that UP is true, and do our best to reason consistently with that assumption.

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## Hume on Causation: Negative

- Our idea of necessary connexion or causal power derives from our experience of seeing one thing *A* repeatedly followed by another *B*, then naturally inferring *B* by custom when we next see an *A*.
- We tend to think that we infer *B* through an awareness of *A*'s having a *power* to cause *B*, but in fact the customary inference is prior: we attribute the power because we find ourselves making the inference.

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## Hume on Causation: Positive

- Having clarified the nature of our idea of cause, we should proceed to reason on that basis: *genuine* causation should be understood in terms of (functional relationships of)\* constant conjunction:
  - ‘all objects, which are found to be constantly conjoin'd, are upon that account alone to be regarded as causes and effects’ (*T* 1.4.5.32)

\* The bracket accommodates laws expressed in terms of quantitative forces: *E* 4.13, 7.25n, 7.29n.

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## Hume on Science – Negative

- In advance of experience, we cannot know *anything* about what causes what.
  - So experience is *our only basis* for making predictions about the unobserved.
- The causal maxim – ‘whatever begins to exist, must have a cause of existence’ – cannot be demonstrated (though it can be supported by experience).
- *Intelligibility* is an impossible dream.

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## Hume on Science – Positive

- Aim for simple causal explanations
  - ‘to reduce the principles, productive of natural phaenomena, to a greater simplicity ... resolve [them] into a few general causes’ (*E* 4.12)
- Discover constant causal laws underlying the inconstant superficial phenomena
  - ‘upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes’ (*E* 8.13)
- If necessary, use empirical probability ...
  - ... as exemplified in the case of miracles.

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