

Humes Old and New: Cartesian Fellow-Traveller, or Revolutionary?



Peter Millican
University of Leeds

The “Old Hume”

The traditional extreme sceptic portrayed
e.g. by Flew (1961) and Stove (1973):

- Deductivism
- Inductive Scepticism
- Universal Irrationalism
- Semantic Empiricism
- Causation as Regularity
- Power Incoherence

O1 Deductivism

- From the point of view of Reason, arguments are “deductive or defective”; good arguments, whether demonstrative or probable, follow a deductive pattern, and the distinction between the two kinds depends not on the strength of their inferential steps, but rather on the apriority or otherwise of their premises.

O2 Inductive Scepticism

- Induction has no rational basis, because it depends on an extrapolation from observed to unobserved which cannot be legitimated at all by either demonstrative or probable reasoning.

O3 Universal Irrationalism

- Since all inductive inference is equally irrational, there is no consistent basis for drawing any demarcation between scientific prediction and superstition.

O4 Semantic Empiricism

- The main aim of the two definitions of causation is to clarify the meaning of the concept of “necessity”, in accordance with the Copy Principle that any simple idea must be derived from, and given meaning by, a corresponding impression. It is this conceptual analysis which informs the “reconciling project” of *Enquiry* VIII regarding liberty and necessity.

O5 Causation as Regularity

- Objectively considered, causation reduces to regular succession, as implied by the first of the two definitions. The second definition encapsulates a point about our subjective experience of causation, not its objective reality.

O6 Power Incoherence

- Our conception of causation is misleadingly enriched by the objectification and projection onto the world of our own inductive instincts. Though psychologically compelling, this projection is actually incoherent – we have no relevant impression, and therefore cannot even form an idea of powers in nature that by “gluing” events together provide an objective ground for causal inference. Hence the ascription of powers to objects is incoherent.

The “New Hume”

The causal realist portrayed e.g. by Wright (1983), Broughton (1987), Craig (1987), Strawson (1989), Buckle (1992) ... :

- (*deductivism and inductive scepticism*)
- Universal Irrationalism *denied*
- Semantic Empiricism *denied*
- Causation as Regularity *denied*
- Power Incoherence *denied*

N3 Universal Irrationalism *denied*

- While being strictly sceptical about *knowledge* claims, mitigated scepticism of the kind recommended in *Enquiry XII* can provide a consistent basis for distinguishing between “reasonable” and “unreasonable” inductive inferences, based on the idea of “methodizing and correcting” our natural beliefs and inferential processes.

N4 Semantic Empiricism *denied*

- Though *presented* as a hunt for a corresponding impression with semantic intent (i.e. to identify the meaning of the idea of necessary connexion), in fact the main aim of the two definitions, and of the discussion leading up to them, is epistemological rather than analytic, to identify *what we know* of necessity rather than *what we mean* by it.

N5 Causation as Regularity *denied*

- Objectively considered, genuine causal relations involve more than mere regular succession; a genuine cause is such in virtue of having a power to bring about its effect, a natural necessity that binds the two together. The two definitions encapsulate *all we can know or contentfully conceive* about causation, rather than defining what “causation” *means*.

N6 Power Incoherence *denied*

- Although our contentful, impression-derived, *idea* of necessary connection cannot properly be ascribed to objects, this doesn't prevent us from conceiving a "relative idea" or *notion* of the inconceivable powers on which we take the "regular succession of objects" to depend. Though by the standards of the Theory of Ideas this notion is inadequate, imprecise, and even contentless, it is sufficient to enable us coherently to think of, and ascribe, objective powers.

The Hume of the *Enquiry*

My own interpretation of Hume's mature position (see Millican 2002):

- Deductivism *denied*
- Inductive Scepticism
- Universal Irrationalism *denied*
- Semantic Empiricism
- Causation as Structured Regularity
- Power Incoherence *denied*

Hume's Factual Inference

- Consider:

Mars is red and round <i>therefore</i> Some round thing is coloured

- Is this "reasoning concerning matter of fact?"
 - Is the inference merely "probable"?
 - Does it go beyond "relations of ideas"?
 - Does it require any appeal to experience or to causal relations?

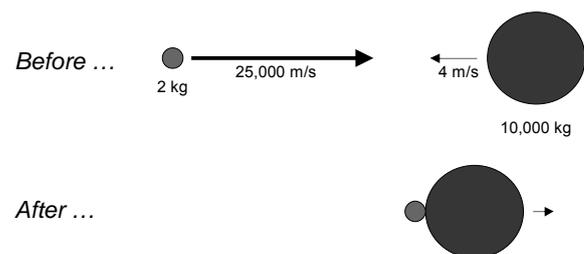
"Demonstrative" => a priori?

- "Were [any matter of fact] demonstratively false, it would imply a contradiction, and could never be distinctly conceived by the mind." (E 25–6)
- "whatever is intelligible, and can be distinctly conceived, implies no contradiction, and can never be proved false by any demonstrative argument or abstract reasoning *à priori*." (E 35)

Demonstration in "mixed maths"

- E 31: "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."

- 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.



- “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 31)
- “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 413–14)

“Demonstrate” vs “Demonstrative”

- Distinguish the relatively weak and plausible (Humean) claim:
 - *that no contingent proposition can be proved demonstratively, or is demonstrable, or can be demonstrated*
- From the much stronger and dubious (non-Humean) claim:
 - *that no contingent proposition can be the conclusion of any demonstrative inference*

The Limits of Demonstration

- “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 163)
- 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. There, we *do* find them!

The Logic of Hume’s Argument Concerning Induction

- (f1) $FO(f,e) \ \& \ FO(e,u) \ \rightarrow \ FO(f,u)$
- (f2) $FO(f,u) \ \rightarrow \ \neg FO(u,f)$
- (f3) $\neg FO(u,s) \ \& \ \neg FO(u,i) \ \& \ \neg FO(u,d) \ \& \ \neg FO(u,f) \ \rightarrow \ \neg FO(u,R)$
- (f4) $FO(f,u) \ \& \ \neg FO(u,R) \ \rightarrow \ \neg FO(f,R)$

Hume’s Alleged Deductivism

- Arguments do not always need a “medium” to get from premiss to conclusion
- Even when they have one, that “medium” can be merely “probable” (D 143)
- Hume recognises that inductions are incurably fallible even if nature is uniform
- Why canvass a merely “probable” justification for the Uniformity Principle?

Hume’s Inductive Scepticism

- (f3) is designed to rule out all possible sources of rational justification for the Uniformity Principle:
 - “It is common for Philosophers to distinguish the Kinds of Evidence into *intuitive, demonstrative, sensible, and moral*”
(Letter from a Gentleman, p. 22)
- Non-sceptical interpretations (e.g. Garrett, Noonan) cannot explain the logic of (f4)

Hume's Inductive Science

- “philosophical decisions are nothing but the reflections of common life, methodized and corrected” (E 162)
- This delivers inductive norms for:
 - *Enquiry VIII* Hidden uniformities
 - *Enquiry IX* Analogy
 - *Enquiry X* Conflicting experience
 - *Enquiry XI* Proportionality

“Liberty” and the Two Definitions of Necessity

- “Beyond the constant *conjunction* of similar objects, and the consequent *inference* from one to the other, we have no notion of any necessity, or connexion.” (E 82)
- “If these circumstances form, in reality, the whole of that necessity, which we conceive in matter, and if these circumstances be also universally acknowledged to take place in the operations of the mind, the dispute is at an end.” (E 93)

The Logic of Hume's “Reconciling Project”

- “... the most zealous advocates for 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 661)

Hume and Quantitative Powers

- it is a law of motion, discovered by experience, that the moment or force of any body in motion is in the compound ratio . . . of its solid contents and its velocity (E 31)
- We find by experience, that a body at rest or in motion continues for ever in its present state, till put from it by some new cause; and that a body impelled takes as much motion from the impelling body as it acquires itself. These are facts. When we call this a *vis inertiae*, we only mark these facts, without pretending to have any idea of the inert power; in the same manner as, when we talk of gravity, we mean certain effects, without comprehending that active power. (E 73 n.)

- the idea of *power* is relative as much as that of *cause*; and both have a reference to an effect, or some other event constantly conjoined with the former. When we consider the *unknown* circumstance of an object, by which the degree or quantity of its effect is fixed and determined, we call that its power: And accordingly, it is allowed by all philosophers, that the effect is the measure of the power. But if they had any idea of power, as it is in itself, why could not they measure it in itself? The dispute whether the force of a body in motion be as its velocity, or the square of its velocity . . . needed not be decided by comparing its effects in equal or unequal times; but by a direct mensuration and comparison. (E 77 n.)

The Revolutionary and Anti-Cartesian Hume of the *Enquiry*



- Deductivism *rejected*
- Perceptual Reason *undermined*
- Universal Irrationalism *avoided*
- Semantic Empiricism *applied*
- Causation as Structured Regularity *endorsed*
- Power Incoherence *denied*
- Naturalistic, inductive Reason *vindicated*