

**Philosophy 203**  
***History of Modern Western Philosophy***

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Class #20  
Hume  
Impressions, Ideas, Facts, Relations

# Business

# Some Ordinary Beliefs

OB1. It is sunny outside right now.

OB2. It snowed in February.

OB3. Shakespeare wrote *The Tragedy of Macbeth*.

OB4.  $2 + 2 = 4$ .

OB5. I exist.

OB6. Objects near the surface of the Earth accelerate toward the center at  $9.8 \text{ m/s}^2$ .

OB7. The sun will rise tomorrow.

- Our account of our beliefs about OB1 appeals to occurrent sense experience.
- Beliefs about OB2 involve memory.
- Beliefs about OB3 involve testimony.
- OB4 and other pure mathematical sentences are controversial and a little puzzling.
  - innate ideas
  - reflection, especially abstraction.
- OB5 seems unassailable when asserted, but *sui generis*.
- Our accounts of our beliefs about OB6 and OB7 appeal to scientific theories.
  - distillations of our best, most secure beliefs about the world
- OB4 - OB7 all present difficulties for empiricists, who may even deny them.

# Mathematical Claims

OB4.  $2 + 2 = 4$ .

- Many empiricists are nominalists or fictionalists about mathematical terms.
- Fictionalism: mathematical objects are merely convenient fictions
  - Existential mathematical claims are false.
    - There are four prime numbers between 10 and 20.
  - Conditional mathematical claims are true, but only vacuously so.
    - All parallelograms have congruent opposite angles.
- Berkeley was a nominalist or fictionalist about both mathematical terms and scientific laws.
  - Illegitimate abstractions from particular ideas

# Hume on Abstraction

## agrees with Berkeley

The idea of extension...is wholly dependent on the sensible ideas or the ideas of secondary qualities. Nothing can save us from this conclusion but the asserting that the ideas of those primary qualities are attained by *abstraction*; an opinion which, if we examine it accurately, we shall find to be unintelligible, and even absurd (*Enquiry*, §XII.1, AW 595b).

# Inference and Mediation

- We are immediately aware of only our ideas, not an external world of objects.
- The external world is perceived only mediately, or inferred.
  - Physical laws
  - Mathematical principles
- Locke claimed knowledge of the external world, science, and mathematics on the basis of a modified resemblance hypothesis and a principle of abstraction.
- Berkeley denied Locke's resemblance hypothesis and doctrine of abstract ideas, and asserted idealism.
  - Only a practical knowledge of general scientific regularities
  - Mathematical principles are fundamentally flawed by their reliance on abstraction.
- For the early empiricists, our beliefs about mathematics and our beliefs about scientific theories are treated together.
  - Descartes, too, but as innate

# Hume's Distinction

- Hume bases our knowledge of mathematics on the principle of contradiction and our bare psychological capacities.
- But he has deep concerns about our knowledge of science.
- He agrees with Berkeley that our conclusions about the material world are unjustified.
  - The mind never has anything present to it but the perceptions and cannot possibly reach any experience of their connection with objects. The supposition of such a connection is, therefore, *without any foundation in reasoning* (*Enquiry*, §XII.1, AW 595a, emphasis added).
- His conclusions are skeptical, rather than idealistic.
- Hume returns to and extends Locke's skepticism about our knowledge of science.
  - For Locke, skepticism is mainly an expression of humility.
  - For Hume, skepticism is a philosophy.

# Induction and Deduction

- Hume's main focus is on the laws of nature, and the ways in which we formulate predictive scientific theories on the basis of our experience.
- The methods of science are inductive.
- Induction is the derivation of a general law from particular cases.
  - ▶ We see lots of objects moving, and stopping, and we generate hypotheses about why this happens.
  - ▶ We see that in events  $E_1, E_2, E_3, \dots$  a law applies.
  - ▶ We conclude that in all similar cases, this law must apply.
- Induction is contrasted with deduction, in which we infer a particular case from a general rule or law.
- Here's a deduction:
  - ▶ All goobles are froom.
  - ▶ Trazzie is a gooble.
  - ▶ So, Trazzie is froom.



# Universal Scientific Laws

We're supposed to know these.

- Newton's three laws of motion
  - L1: Inertia: an object in motion will remain in motion, an object at rest will remain at rest, unless acted on by an unbalanced force.
  - L2: The force produced by an object is equal to the product of its mass and its acceleration.
  - L3: For every action there is an equal and opposite reaction.
- Laws of motion are generalizations from experimental evidence.
- The phenomena, the  $E_n$ , are sensory experiences.

# Hume's Skepticism

Our beliefs in scientific laws are unjustified.

- This skeptical claim arises from what is called the problem of induction.
- Universal scientific claims are unknowable.
  - ▶ “In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature and, consequently, all their effects and influence may change without any change in their sensible qualities” (*Enquiry*, §IV.2, AW 547b).
- Even our knowledge of our selves is impugned by Hume's philosophy.
- Despite its resulting skepticism, Hume holds to his empiricism.
  - ▶ HE1. All our beliefs about the world are either directly derived from sense impressions, or are the result of reasoning about cause and effect relations.
  - ▶ HE2. All our beliefs about cause and effect relations are based on experience, not reason.
  - ▶ HEC. So, all beliefs about the world are based on experience.

# Hume's Methods

- We start with a modest appraisal of our experience and our psychological capacities.
- We examine the nature of our psychology, and see what conclusions are warranted.
- And, we will humbly avoid making unsupported claims.
- The major difference between Hume and Locke is the severity with which Hume invokes his empiricist limitations, and his consequent skepticism, and atheism.

# Hume's Work

- Published the *Treatise* in 1739 when he was 27, anonymously.
  - “It fell stillborn from the press.”
- Suppressed his *Dialogues Concerning Natural Religion*
  - published posthumously
  - Hume's atheism was widely known and ridiculed.
  - His proposed university appointments were blocked by the Scottish clergy twice.
  - Virginia Woolf
- *Enquiry Concerning Human Understanding*, published in 1748.

# Topics in Hume

1. Causation and Induction
  - 2 days
2. The Bundle Theory of the Self
3. Free Will and Compatibilism

# Hume's Epistemology

## An Overview

- Hume and Locke have similar, empiricist epistemologies.
  - We start with our sense experience.
  - We reflect, using our ordinary psychological capacities.
- Locke believed that those capacities were profound.
  - The doctrine of abstract ideas
- Hume agrees with Berkeley that Locke over-reaches concerning abstraction.

# Ideas and Impressions

- All knowledge comes from experience
  - ▶ “We may divide all the perceptions of the mind into two classes or species, which are distinguished by their different degrees of force and vivacity. The less forcible and lively are commonly denominated thoughts or ideas. The other species want a name in our language, and in most others; I suppose, because it was not requisite for any but philosophical purposes to rank them under a general term or appellation. Let us, therefore, use a little freedom and call them impressions, employing that word in a sense somewhat different from the usual. By the term *impression*, then, I mean all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will. And impressions are distinguished from ideas, which are the less lively perceptions, of which we are conscious, when we reflect on any of those sensations or movements above mentioned (§II, AW 539a).
- Impressions
  - ▶ sensations or vibrant ideas
  - ▶ a hand on a burning stove, or the sound of a voice, or what you are looking at right now
  - ▶ ‘qualia’, ‘sensation’, ‘phenomenal experience’
- Ideas are the recollections of impressions.
- The mind has simple ideas and complex ones.
  - ▶ Simple ideas come directly from impressions.
- Original ideas are ones that we construct ourselves
  - ▶ Unicorns
  - ▶ Combinations of simple ideas

# The Missing Shade of Blue

- Hume's epistemology is mainly consistent with Locke's and Berkeley's.
- A limited exception:

“Suppose...a person to have enjoyed his sight for thirty years, and to have become perfectly acquainted with colors of all kinds except one particular shade of blue, for instance, which it never has been his fortune to meet with. Let all the different shades of that color, except that single one, be placed before him, descending gradually from the deepest to the lightest; it is plain that he will perceive a blank, where that shade is wanting, and will be sensible that there is a greater distance in that place between the contiguous color than in any other. Now I ask whether it be possible for him, from his own imagination, to supply this deficiency, and raise up to himself the idea of that particular shade, though it had never been conveyed to him by his senses? I believe there are few but will be of opinion that he can; and this may serve as a proof that the simple ideas are not always, in every instance, derived from the correspondent impressions; though this instance is so singular, that it is scarcely worth our observing, and does not merit that for it alone we should alter our general maxim” (§II, AW 540b).



# The Limits of Philosophy

- “When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, *From what impression is that supposed idea derived?* And if it be impossible to assign any, this will serve to confirm our suspicion. By bringing ideas into so clear a light we may reasonably hope to remove all dispute, which may arise, concerning their nature and reality” (§II, AW 540b-541a).
- Hume is willing to entertain exceptions to his rule.
- The missing shade of blue is just one such exception.
- It is not the kind of exception that will found the rationalist’s projects.
- It is just a small thing, not the introduction of innate ideas.

# Psychological Connections Among Ideas

There appear to be only three principles of connection among ideas, namely, *resemblance*, *contiguity* in time or place, and *cause* or *effect*. That these principles serve to connect ideas will not, I believe, be much doubted. A picture naturally leads our thoughts to the original. The mention of one apartment in a building naturally introduces an enquiry or discourse concerning the others; and if we think of a wound, we can scarcely forbear reflecting on the pain which follows it. But that this enumeration is complete, and that there are no other principles of association except these, may be difficult to prove to the satisfaction of the reader, or even to a man's own satisfaction. All we can do, in such cases, is to run over several instances, and examine carefully the principle which binds the different thoughts to each other, never stopping till we render the principle as general as possible. The more instances we examine, and the more care we employ, the more assurance shall we acquire, that the enumeration, which we form from the whole, is complete and entire (§III, AW 541b).

# Connection and Reflection

- Hume's three principles of connection among ideas (resemblance, contiguity, and cause and effect) appear throughout the *Enquiry* as the foundation for all reasoning.
- Experience, in the guise of sense impression, and reasoning, in the guise of the psychological connections among ideas, work together to produce our beliefs.
- There is no clear line between the two.
  - ▶ “Notwithstanding that this distinction [between experience and reason] is thus universally received, both in the active and speculative scenes of life, I shall not scruple to pronounce that it is, at bottom, erroneous, at least, superficial” (*Enquiry*, §V.1, fn 9; AW 550a).
- We have some psychological capacities to alter the ideas of sensation and to create new ones.
  - ▶ We can combine parts of our ideas, as when we think of a centaur.
  - ▶ We can consider some portions of an idea apart from others, as when we think about the door of a building, and not the walls or roof or windows.
- In particular, we have no Lockean capacity for abstraction.
  - ▶ “It is a principle generally received in philosophy that everything in nature is individual and that it is utterly absurd to suppose a triangle really existent which has no precise proportion of sides and angles. If this, therefore, be absurd in *fact and reality*, it must also be absurd in *idea*, since nothing of which we can form a clear and distinct idea is absurd and impossible” (*Treatise* I.1.7, p 5).

# Repurposing Particular Ideas

- Locke introduces the doctrine of abstract ideas to replace the rationalists's innate ideas with an appeal to psychological capacities.
  - An ability to speak generally is fundamental to mathematics and empirical science.
- Berkeley suggests that we can use particular terms generally, without pretending to form abstract ideas.
  - “A word becomes general by being made the sign, not of an abstract general idea, but of several particular ideas, any one of which it indifferently suggests to the mind” (Berkeley, *Principles* Introduction §11, AW 442a).
- Hume agrees.
  - “The image in the mind is only that of a particular object, though the application of it in our reasoning be the same as if it were universal” (*Treatise* I.1.7, p 5).
  - “A particular idea becomes general by being annexed to a general term, that is, to a term which, from a customary conjunction, has a relation to many other particular ideas and readily recalls them in the imagination” (*Treatise* I.1.7, p 6).
- But taking particulars to stand for other particulars may not succeed in supporting knowledge of those universal claims.
  - “The theories, therefore, in arithmetic...can be supposed to have nothing at all for their object. Hence we may see how entirely the science of numbers is subordinate to practice and how jejune and trifling it becomes when considered as a matter of mere speculation” (Berkeley, *Principles* §120).

# Hume and Berkeley On Abstract Ideas

- Berkeley and Hume differ on the lesson to be learned from the failure of Locke's doctrine of abstract ideas.
- Berkeley denies the existence of mathematical objects and the truth of physical laws.
- Hume bases our knowledge of mathematics on the principle of contradiction and our bare psychological capacities or habits.
  - "If ideas be particular in their nature and at the same time finite in their number, it is only by custom they can become general in their representation and contain an infinite number of other ideas under them" (ibid, p 7).
- But he has deep concerns about our knowledge of science.
- Hume is able to separate mathematics and science with a distinction.

# Matters of Fact and Relations of Ideas

- “All the objects of human reason or enquiry may naturally be divided into two kinds, namely, *relations of ideas*, and *matters of fact*. Of the first kind are the sciences of geometry, algebra, and arithmetic; and in short, every affirmation which is either intuitively or demonstratively certain. *That the square of the hypotenuse is equal to the square of the two sides* is a proposition which expresses a relation between these figures. *That three times five is equal to the half of thirty* expresses a relation between these numbers. Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. Though there never were a circle or triangle in nature, the truths demonstrated by Euclid would for ever retain their certainty and evidence” (§IV.1, AW 542a).
- Matters of fact are acquired *a posteriori* and are contingent.
- Relations of ideas are acquired *a priori*, deductively, and are necessary.

# Relations of Ideas and the Principle of Contradiction

## Leibniz, Without Innateness

- “What never was seen, or heard of, may yet be conceived, nor is any thing beyond the power of thought except what implies an absolute contradiction” (§II, AW 539b).
- “We are possessed of a precise standard by which we can judge of the equality and proportion of numbers and, according as they correspond or not to that standard, we determine their relations without any possibility of error” (*Treatise* I.3.1, p 8).
- If a statement entails a contradiction, then it is necessarily false.
  - *reductio ad absurdum*
- The negations of mathematical claims are self-contradictory.
- Some non-mathematical claims can be relations of ideas.
  - All bachelors are unmarried.
  - “To convince us of this proposition, *that where there is no property, there can be no injustice*, it is only necessary to define the terms and explain injustice to be a violation of property. This proposition is, indeed, nothing but a more imperfect definition. It is the same case with all those pretended syllogistical reasonings which may be found in every other branch of learning, except the sciences of quantity and number; and these may safely, I think, be pronounced the only proper objects of knowledge and demonstration” (§XII.3, AW 599b).

# Beyond Contradiction

- It turns out that the principle of contradiction, by itself, can not do all the work that Hume wanted it to do.
- We need auxiliary tools to frame an hypothesis, to determine whether a statement is in fact a contradiction
- We really need two tools to identify relations of ideas.
  - RI1. The principle of contradiction.
  - RI2. The imagination's ability to recognize similarity and difference.
- In the late 19th Century, Frege develops a syntactic test for contradiction.
  - ▶ a formal language in which contradictions could be represented
  - ▶  $\alpha \bullet \sim\alpha$ .
- Hume and the moderns did not have this criterion.
  - ▶ Locke and Hume appeal to our psychological ability to recognize contradictions.
  - ▶ “If we will reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two *ideas* immediately by themselves, without the intervention of any other. And this, I think, we may call *intuitive knowledge*” (Locke, *Essay* §IV.II. 1, AW 389a).



# Hume on Intuition and Demonstration

Only four [philosophical relations], depending solely upon ideas, can be the objects of knowledge and certainty. These four are *resemblance*, *contrariety*, *degrees in quality*, and *proportions in quantity or number*. Three of these relations are discoverable at first sight and fall more properly under the province of intuition than demonstration (*Treatise* I.III.1, p 7).

When the mind cannot so bring its *ideas* together, as by their immediate comparison and as it were juxtaposition or application one to another, to perceive their agreement or disagreement, it is inclined, by the intervention of other *ideas* (one or more, as it happens) to discover the agreement or disagreement which it searches; and this is that which we call *reasoning* (Locke, *Essay* IV.II.2, AW 389b).

# Relations of Ideas and Psychological Capacities

- For Leibniz and Locke and Hume, we have both intuitive knowledge or immediate apprehension of some basic principles, and derivative knowledge of more complex statements.
- Leibniz claimed that intuitive knowledge could not be explained by sense experience.
- Locke and Hume, believing it to be just the result of a natural psychological ability to recognize similarities, differences, and contradictions, argue that this ability is acceptable to empiricists, and includes no appeal to innate ideas.
- Hume's division between relations of ideas and matters of fact allows him to maintain a commonsense view about the certainty and security of mathematics.
- Still, Hume points out, our ability to identify relations of ideas applies only narrowly.
  - “The only objects of the abstract sciences or of demonstration are quantity and number...All other inquiries of men regard only matter of fact and existence and these are evidently incapable of demonstration. Whatever *is* may *not be*. No negation of a fact can involve a contradiction” (*Enquiry* XII.3, AW 599b).
- For matters of fact, big questions remain.