Philosophy 203
History of Modern Western Philosophy

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Class #20
Hume on Causation and Induction

Business

- Philosophy is my business.

Hume's Work

In context

- Hume, Locke, and Berkeley have similar, empiricist epistemologies.
  - We start with our sense experience.
  - We reflect, using our ordinary psychological capacities.
- Locke presents an intuitive materialism, based on the primary/secondary distinction:
  - Some sense experience is misleading.
  - But some is veridical.
- Berkeley points out that Locke's presumptions should lead him to skepticism.
  - He presents idealism as an alternative.
- Hume agrees with Berkeley that our conclusions about the material world are unjustified.
  - Locke over-reaches concerning abstraction.
- But the problem is even worse, denigrating all of science as unjustified.
- Hume extends Locke's humility about our knowledge of science to skepticism.
  - Locke is a reluctant skeptic.
  - Hume is an enthusiastic skeptic.

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.... a law applies.
  - We conclude that in all similar cases, this law must apply.
- Induction is contrasted with deduction, in which we often 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 (inductions) from experimental evidence.
- The phenomena, the E_n, are sensory experiences.

Hume's Skepticism

Our beliefs in scientific laws are unjustified.

- The problem of induction
  - "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" (Hume, *Enquiry*, §IV.2, AW 547b).
- Even our knowledge of our selves is impugned by Hume's philosophy.

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
   - Three classes
2. Free Will and Compatibilism
   - With Leibniz
3. The Bundle Theory of the Self
   - With Reid and Rebecca Copenhaver




Topics in Hume

☛**1. Causation and Induction**

2. Free Will and Compatibilism

3. The Bundle Theory of the Self

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 (Hume, *Enquiry,* §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

Team Activity

The Missing Shade of Blue

"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" (Hume, *Enquiry,* §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" (Hume, *Enquiry,* §II, AW 540b-541a).
  - Recall Hobbes's work.
- 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.
  - And speaking of innate ideas...

Mathematics

- Hume's skepticism arises in part from his agreement with Berkeley about the limits of sense experience.
- We cannot go beyond the Lockean veil of perception to know the nature of things in themselves.
- Berkeley decried Lockean materialism for its naive abstraction of objects from perceptions.
  - Hume agrees with Berkeley that Locke over-reaches concerning abstraction.
- Berkeley also denigrates mathematics as based on the doctrine of abstraction.
- Hume keeps mathematics by distinguishing between the two.
  - Relations of ideas
  - Matters of fact

Team Activity

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 hypothenuse 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 (Hume, *Enquiry*, §IV.1, AW 542a).
- Which of the following interpretations best captures Hume's view about mathematics, the paradigm relations of ideas?

  A. Mathematical claims are knowably true and certain, since they concern eternal objects, ones which exist necessarily.

  B. Mathematical claims are knowably true and certain, since we can, by just thinking, show that mathematical objects exist and what their properties are.

  C. Mathematical claims are knowably true and certain, because they don't concern any real objects.

  D. Mathematical claims are knowably true and certain, even though they do not concern any real objects.

  E. Mathematical claims are knowably true and certain, whether or not they concern real objects.

Relations of Ideas are Based on the Principle of Contradiction

- If a statement entails a contradiction, then it is necessarily false.
  - *reductio ad absurdum*
  - One of Leibniz's "Great Principles"
  - "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" (Hume, *Enquiry*, §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" (Hume, *Treatise* I.3.1, p 8).
- 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).

Relation of Ideas or Matter of Fact?

There are blue chairs in this room.

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relation of Ideas or Matter of Fact?

The positive square root of forty-nine is seven.

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relation of Ideas or Matter of Fact?

God's goodness ensures that our beliefs about material objects are veridical (true of the world).

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relation of Ideas or Matter of Fact?

All bachelors are unmarried.

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relation of Ideas or Matter of Fact?

All human beings are less than ten feet tall.

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relation of Ideas or Matter of Fact?

If p then not not-p.

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relations of Ideas and Psychological Capacities

- For Hume, like Locke, we have intuitive knowledge of some basic principles.
  - Impressions and their derivative ideas (memory)
  - A natural psychological ability to recognize similarities, differences, and contradictions.
  - No appeal to innate ideas
- We also have derivative knowledge of more complex statements.
  - Relations of ideas
- The division between relations of ideas and matters of fact allows him to maintain a commonsense view about the certainty and security of mathematics.
  - In contrast to Berkeley
- Still, 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.

Relation of Ideas or Matter of Fact?

Newton's Laws have described,
in the past, approximately,
physical interactions
of medium-sized objects
moving at medium speeds.

A: Relation of Ideas

B: Matter of Fact

C: Neither

Relation of Ideas or Matter of Fact?

The sun will rise tomorrow.

A: Relation of Ideas

B: Matter of Fact

C: Neither

The Denial of a Law of Nature is Not a Contradiction

The course of nature may change, and...an object seemingly like those which we have experienced, may be attended with different or contrary effects. May I not clearly and distinctly conceive that a body, falling from the clouds, and which in all other respects resembles snow, has yet the taste of salt or feeling of fire? Is there any more intelligible proposition than to affirm that all the trees will flourish in December and January and decay in May and June? Now, whatever is intelligible and can be distinctly conceived implies no contradiction and can never be proved false by any demonstrative argument or abstract reasoning *a priori* (§IV.2, AW 546a-b).