Philosophy 101: Introduction to Philosophy, Queens College, Fall 2004
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Lecture Notes, November 22

I. Hume's argument for empiricism.

Berkeley and Locke start by assuming empiricism.
Hume has an argument.

Hume's argument for empiricism (Handout, II):
1) All our beliefs about the world are based on our beliefs about cause and effect relations.
2) All our beliefs about cause and effect relations are based on experience, not reason, 17.
So, all beliefs about the world are based on experience.
That is, empiricism is true.

We'll see how he supports the premises later.
First, let's get a sense of the bigger picture, here.

II. The new science, and laws of motion.

Hume and Locke are trying to do for philosophy what Galileo and Newton did for science.
What were their achievements? (See Handout, III.)
What exactly did Newton discover, when the apple fell on his head?

1) There is no natural center of the universe.
2) Motion is simply change of place, not development toward some fulfilling goal (teleology).
That is, there are universal laws of motion that apply both on Earth and elsewhere.
3) Rest is simply a limiting case of motion, not the final fulfillment of a goal.
Rest, like motion, is a normal state which doesn't need to be explained in terms of an object reaching its goal, or "final cause".
Both motion and rest can be explained by the laws of motion.

For an example of a law of motion, consider Newton's three laws:
L1: An object in motion will remain in motion, an object at rest will remain at rest, unless acted on by an unbalanced force.
L2: F=ma
L3: For every action there is an equal and opposite reaction.

Newton said that the principles of explanation, the laws, are to be "deduced from the phenomena." (Handout, IV)
We see lots of objects moving, and stopping, and we generate hypotheses about why this happens.
We see that in all E1, E2, E3.... a law applies.
We conclude that in all similar cases, this law must apply.

Some terminology:
Induction: Deriving a general law from particular cases (generalizing).
Deduction: Inferring a particular case from a general rule or law.

Induction, the process described above, is the foundation of all science.
Hume argues that it relies on analogy, p 69.
This is because we have to consider when cases are similar, in order to know when a law applies.

So, scientific laws are generalizations from experimental evidence.
The phenomena, the E_n, are sensory experiences.
This is Hume's empiricism.
For Descartes, we reason to these laws.
For Hume, we base them in principles of induction over sense experiences.

III. The Contents of the Mind: Ideas and Impressions

Hume divides the contents of the mind into ideas and impressions, p10.
An impression is a sensation at hand, a vibrant idea, like a hand on a burning stove, or the sound of a voice, or what you are looking at right now.
An idea is the thought of that burning sensation ten minutes later.

The mind has simple ideas and complex ones.
Simple ideas are derived directly from impressions.
We can also have original ideas, one's that we construct ourselves, like those of unicorns.
These are complex ideas, made up of combinations of simple ideas.

Hume does admit of a limited exception to the general rule that all the contents of the mind are simple or complex ideas, or impressions.
We might be able to fill in a missing shade of blue, pp 12-3.

Hume's empiricism, then, entails that we must be able to trace any legitimate assertion back to original sense impressions.
Only the assertions traceable to simple ideas can be justified, p 13.

IV. Overthrowing Science

Scientific generalizations go beyond sensory evidence.
Descartes argues that evidence of reason can allow us to make the inductive leap.
That won't work for Hume, obviously.
We can not go beyond the evidence of our senses, pp 93-4.

So, all scientific claims are unjustified.
It's not just that physical laws like Newtonian gravitation, or laws of gases, etc. are derived from experimental evidence.
Even the existence of a physical world is a scientific hypothesis generated by experience, p 104, but also p 107.

Hume agrees with Berkeley on the primary/secondary distinction and impossibility of proving the external world on the basis of experience, but rejects recourse to God, p 105.
The God hypothesis goes beyond legitimate inference, goes beyond the data.

Handout, V:
"When we run over libraries, persuaded of these principles, what havoc must we make? If we take in hand any volume - of divinity or school metaphysics, for instance - let us ask, D*oes it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames, for it can contain nothing but sophistry and illusion. (*Enquiry*, Hackett, 114)

V. Matters of Fact and Relations of Ideas

Note that Hume does not urge burning the mathematics books.
He divides human reasoning into matters of fact, which are scientific, broadly construed, and relations of ideas, which are of mathematics and logic, p 15.
Matters of fact are a posteriori, contingent.

This is a term of art, not as in “as a matter of fact”.
Relations of ideas are a priori, necessary, deductive.
They derive from the law of contradiction: anything whose denial entails a contradiction is necessarily true, p 11.