I. Mechanics
   A. Upcoming readings
      1. Today we’ll finish up
         a. Hume, D. *Enquiry Concerning Human Understanding*
      2. Start on Ethics Chapter, so for next week
         a. Tuesday
            i. Rachels, J. *Does Morality Depend on Religion?*
            ii. Plato *Euthyphro*
            iii. Antony, L. *Good Minus God*
         b. Thursday
            i. Rachels, J. *Subjectivism in Ethics*
   B. Down the road a bit:
      1. Second Paper Due: In lecture, Thursday 11/14
      2. Outlines
         a. For epistemology due today
         b. Last three chapters as we get to them
      3. Purdue's Powers That Be, in Their Boundless Wisdom have finally seen fit to tell us when our (cumulative) Final Exam is:
         a. Monday 12/9/19
         b. 10:30am – 12:30pm
         c. ARMS 1010

New Chapter: Epistemology: The Theory and Nature of Knowledge

I. Some Preliminaries
   II. Descartes (1596-1650)
   III. John Locke (1632-1704)
   IV. Berkeley’s Answer: Idealism
   V. Part II of Chapter on Epistemology: The Problem of Induction
      A. Preliminaries
      B. Inductive arguments
      C. Hume’s problem of induction
      D. Hume’s Skeptical “Answer”
         1. It’s “skeptical” and an “answer” because Hume (the Great Skeptic) concludes inductive inferences and arguments *can’t* be justified!
         2. Why not? He points out a crucial, though often *tacit* assumption in *all* inductive arguments, namely the assumption that
            a. “The future will be like the past”
               i. Our future observations, or pieces of evidence and data that will be gathered in the *future*
               ii. Will be like those observations, and pieces of evidence and data that have been gathered in the *past*
            b. We will call this the Inductive Assumption
               i. For short: IA: “the future will be like the past”
ii. Salmon basically generalizes this in what he calls “the principle of the uniformity of nature”

3. IA is the motor that drives induction

4. Without it, observed cases (from the past) tell us nothing about unobserved cases (those we might observe in the future)
   a. No predictions about the future can be made from any set of past observations
      i. All the burritos I’ve eaten before tell me anything about the next burrito I’ll eat at Qdoba
      ii. None of the tests about copper’s conductivity tell us anything about copper in general
   b. No general laws can be inferred from past observations

5. Unfortunately, we do not appear to have any good justification for the IA that is crucial to every inductive inference

6. Worse, Hume argues that we can never justify IA

7. Hume sets it up as a dilemma
   a. Option 1: Can IA be justified deductively?
      i. No! says Hume
      ii. This premise, IA, does not follow from or contribute to any type of “relation of ideas”
         A. IA is not true merely in virtue of the form or meaning of the words involved
         B. IA does not provide arguments with deductive validity
      iii. IA itself is an assertion about “matters of fact”
   b. Option 2: Can IA be justified IA inductively?
      i. What would such an attempt look like?
         A. Premise: In the past, IA has been true
         B. Conclusion: Therefore, in the future, IA will be true
      ii. Why doesn’t option 2 work?
         A. The inference from premise to conclusion is a non-sequitur
         B. Unless we assume “the future will be like the past” as a further (tacit) premise
            1. Premise: In the past, IA has been true
            2. Tacit Premise: The future will be like the past with respect to IA
            3. Conclusion: Therefore, in the future, IA will be true
         C. But this tacit premise just is the IA, the inductive assumption, i.e. the very conclusion we are attempting to justify!
            1. We would be assuming as a premise what we are trying to prove
            2. This is the very definition of circular reasoning
D. Upshot: trying to justify IA with inductive methods begs the question!

E. Generalizing Hume’s “Answer”
   1. Probabilistic reasoning to the rescue?
      a. Maybe we can’t know exactly when the future will be like the past
      b. We can know the probability with which an event will happen or one event will follow another
      c. For example:
         i. Premise 1: 90 out of the last 100 (90%) Jet Blue flights arrived on time
         ii. Premise 2: I can’t be 100% certain that my Jet Blue flight to Maui will arrive on time
         iii. Conclusion: But in can know that it has a 90% chance to arrive on time
      d. Skeptical Response: even these sorts of probabilistic inferences rely on IA, the Inductive Assumption
         i. Spelled out in full, this is an enumerative inductive inference to the next case
            A. It moves from past cases, 90% of which arrived on time
            B. To a single case in the future, namely the case of my own flight
         ii. Like all the others examples, it tacitly relies on the assumption that the future will be like the past
         iii. The only difference is it goes from a probabilistic premise to a probabilistic conclusion
   2. Hume’s “answer” is a skeptical one because
      a. He ultimately concludes that those inductive inferences and arguments cannot be justified
         i. We don’t know when they will yield true conclusions
         ii. The future is like the past, except when it isn’t
      b. Hume concedes that induction seems to work most of the time, even if
         i. We don’t really know why it works
         ii. Nor do we know when it is going to fail
      c. He also thinks while he can’t justify them, he can explain why we make inductive inferences the way we do
         i. Hume’s explanation of why we make inductive inferences the way we do is by appeal to “custom” or a “mental habit”
         ii. In his own words:
            A. “we are inclined to behave or think in some way, not because it can be justified by reasoning or some process of the understanding but just because we have behaved or thought like that so often in the
past, we always say that this inclination is the effect of ‘custom’.

B. “After the constant conjunction of two objects - heat and flame, for instance, or weight and solidity - sheer habit makes us expect the one when we experience the other.”

F. The debate from here
   1. The problem of induction is purely epistemological
      a. Difficulties of making inferences from
         i. The known to the unknown
         ii. The past to the future
         iii. Or more precisely, from the observed to the unobserved or not yet observed
      b. Do not arise for an omniscient being
         i. Since such a being knows and sees everything
         ii. S/He doesn’t have to make any inductive inferences from the observed to the unobserved
         iii. Or make any inductive inferences from the known to the unknown!
      c. Unfortunately, we aren’t omniscient, and we’re still stuck with the problem
   2. Can see this as another manifestation of many of the other issues that we’ve talked about in this chapter
      a. For example
         i. Descartes’ problem of perception, knowledge of the external world, and the worries about solipsism
         ii. The debate between rationalists and empiricists over the respective roles of a priori and a posteriori reasoning
         iii. The epistemic status of modern science that uses both empirical and mathematical methods
         iv. Figuring out what it seems to be telling us about the nature of reality, the world external to our own minds
      b. Have we gotten out of our own heads yet?
         i. If deduction is the only genuine form of justification
            A. Only deductive inferences are secure
            B. Only beliefs arrived at deductively are justified
         ii. Then it seems that all we can really know about are
            A. The contents of our own consciousness (in Descartes’ terminology)
            B. Ideas (in Locke and Berkeley’s terminology)
            C. And the deductively secure relations between ideas (in Hume’s terminology)
         iii. As Nagel puts it “it is difficult to avoid retreating to an empiricism that makes most of human knowledge an exploration of the insides of our own minds, and of how things appear to us”
c. A larger passage from here, which I enthusiastically recommend you read in full:

“The difference between rationalists and empiricists was not over the validity of empirical science, but over how much could be known on the basis of a priori reasoning, rather than observation. Observations alone do not create scientific theories: they have to be created by reasoners, who construct possible laws of nature and calculate their observable consequences for the purpose of experimental confirmation or disconfirmation.

Even where the empiricists admitted nonempirical certainties, as in mathematics, they interpreted them as apprehensions of the relations among our ideas, and that leaves it unclear how far such knowledge reaches beyond our own minds.

The rationalists, by contrast, believed that reason could give us direct knowledge of necessary truths about a reality independent of our minds—logical, mathematical, and metaphysical truths—and this has important consequences for the interpretation of the empirical sciences. …

Descartes relied on flimsy arguments for the existence of a nondeceiving God to defend his trust in his own reasoning and perception. But there is no consensus that anyone else, however ingenious the attempts in the centuries since, has come up with a satisfactory answer to radical skepticism.

In spite of this, most of us, whether we are engaged in ordinary life or in the pursuit of science, rely on both experiential evidence and a priori reasoning to acquire what we regard as knowledge of a mind-independent reality. And in reasoning, we take ourselves to be justified by what seems plainly self-evident—what Descartes called the “natural light” of reason. If we do not take this as a method of learning about reality, whether in mathematics or in science, it is difficult to avoid retreating to an empiricism that makes most of human knowledge an exploration of the insides of our own minds, and of how things appear to us.”

3. The problem of induction, in its many forms, is a large issue
   a. In the philosophy of science
   b. In the relatively new field of inductive logic
   c. Purdue Philosophy department offers many courses if you would like to explore these issues in more depth
      i. PHIL 221 Introduction to Philosophy of Science
      ii. PHIL 350 Philosophy and Probability
      iii. PHIL 421 Philosophy of Science

Ethics

I. Preliminaries
   A. Ethics in general is the study of morality, and focuses on concepts such as
      1. Right and wrong
      2. Value
      3. Obligation and duty
      4. Virtue
      5. The good life
B. The study of morality and ethics can be divided up into (at least) 4 different sub topics

1. Normative ethics
   a. Normative ethical theories are theories about the very general standards of rightness or wrongness of actions
   b. About how to determine what we ought to do or what we should not do, about which actions, behaviors, practices, etc. are morally permissible and which are not
      i. Does whether an action is morally permissible depend on its consequences?
      ii. Or are the consequences irrelevant, and the moral status of an action depends on something else?
         A. Some sort of intrinsic property of the action?
         B. Whether the action conforms to a moral rule, duty, or obligation?
         C. Whether it is motivated by a virtuous psychological state?
   c. Normative ethical theories are prescriptive, rather than descriptive or explanatory
      i. They tell us how we should act
      ii. Give us an ideal to aspire to (even if we rarely meet it)
      iii. Though they are both called 'theories' normative ethical theories are importantly different from other types of theories, including scientific theories
         A. Scientific theories are in the business of trying to describe what actually happens, and predict what actually will happen
         B. Normative ethical theories are in the business of trying to figure out what should happen (even if it rarely or never does happen)
   iv. Normative ethical theories not in the business of trying to
      A. Explain how or tell us why people do what they actually do
      B. Predict how people will typically act
   v. Another way: normative ethical theories deal with the realm of ought and should, rather than is or will

2. Applied ethics
   a. Seeks to determine how we should apply normative ethical theories and standards to specific cases
      i. Abortion
      ii. Use and legalization of certain drugs
      iii. Cloning and genetic enhancement
      iv. Affirmative action

   d. Our department offers a number of courses that explore these issues in more depth
      i. PHIL 111 Ethics
      ii. PHIL 411 Modern Ethical Theories
v. Data privacy and algorithmic bias
vi. Treatment of non-human animals
vii. Global warming and Environmental policy

b. Our department offers a number of courses that explore these issues in more depth
   i. PHIL 270 Biomedical Ethics
   ii. PHIL 280 Ethics and Animals
   iii. PHIL 290 Environmental Ethics