

Rationalism and Empiricism

Cal State Fullerton
Instructor: Jason Sheley

Opening week

- Welcome to the class!
- My first goal this week is to show you what the class is all about so that you can make an informed decision as to whether you want to take it or not.
- My second goal is to help ease us into studying philosophy so that it seems not so intimidating.

How to Get the Most Out of This Class

- 1) Do your best with the readings.
- 2) Do the research journal
- 3) Investigate more sources outside of class.
- 4) Be active. Be on the lookout for tips and tricks you can use in your own life.
- 5) Be critical and helpful. Do your best to help all of us understand what is going on.

Remixes

- What does it mean for something to be original?
- What is a remix?
- Are remixes original? Why or why not?



What is our relationship to the past?



What is our relationship to the past?



What is the point of
reconstructing
the past?

- What does it mean to be an Empiricist?
- What does it mean to be a Rationalist?
- What is the main difference between the two?

Francis Bacon

1561-1626



For and Against Aristotle

THE NEW ORGANON

APHORISMS 31–46

XXXI

It is idle to expect any great advancement in science from the superinducing and engrafting of new things upon old. We must begin anew from the very foundations, unless we would revolve forever in a circle with mean and contemptible progress.

XXXII

The honor of the ancient authors, and indeed of all, remains untouched, since the comparison I challenge is not of wits or faculties, but of ways and methods, and the part I take upon myself is not that of a judge, but of a guide.

XXXIII

This must be plainly avowed: no judgment can be rightly formed either of my method or of the discoveries to which it leads, by means of anticipations (that is to say, of the reasoning which is now in

XXXIV

Even to deliver and explain what I bring forward is no easy matter, for things in themselves new will yet be apprehended with reference to what is old.

XXXV

It was said by Borgia of the expedition of the French into Italy, that they came with chalk in their hands to mark out their lodgings, not with arms to force their way in. I in like manner would have my doctrine enter quietly into the minds that are fit and capable of receiving it; for confutations cannot be employed when the difference is upon first principles and very notions, and even upon forms of demonstration.

XXXVI

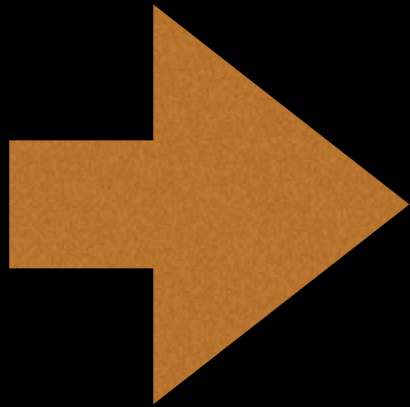
One method of delivery alone remains to us which is simply this: we must lead men to the particulars themselves, and their series and order; while men on their side must force themselves for a while to lay their notions by and begin to familiarize themselves with facts.

XXXVII

The doctrine of those who have denied that certainty could be attained at all has some agreement with my way of proceeding at the first setting out; but they end in being infinitely separated and opposed. For the holders of that doctrine assert simply that nothing can be known. I also assert that not much can be known in nature by the way which is now in use. But then they go on to destroy the authority of the senses and understanding; whereas I proceed to devise and supply helps for the same.

XXXVIII

The idols and false notions which are now in possession of the human understanding, and have taken deep root therein, not only so beset men's minds that truth can hardly find entrance, but even after entrance is obtained, they will again in the very instauration of the sciences meet and trouble us, unless men being forewarned



Bacon's Idols

- According to Bacon, the best route to the truth is use the senses in the process of induction.
- The problem is that the mind of the investigator is prejudiced by old knowledge and old habits.

XLI

The Idols of the Tribe have their foundation in human nature itself, and in the tribe or race of men. For it is a false assertion that the sense of man is the measure of things. On the contrary, all perceptions as well of the sense as of the mind are according to the measure of the individual and not according to the measure of the universe. And the human understanding is like a false mirror, which, receiving rays irregularly, distorts and discolors the nature of things by mingling its own nature with it. /

XLII

The Idols of the Cave are the idols of the individual man. For everyone (besides the errors common to human nature in general) has a cave or den of his own, which refracts and discolors the light of nature, owing either to his own proper and peculiar nature; or to his education and conversation with others; or to the reading of books, and the authority of those whom he esteems and admires; or to the differences of impressions, accordingly as they take place in a mind preoccupied and predisposed or in a mind indifferent and settled; or the like. So that the spirit of man (according as it is meted out to different individuals) is in fact a thing variable and full of perturbation, and governed as it were by chance. Whence it was well observed by Heraclitus that men look for sciences in their own lessor worlds, and not in the greater or common world. 2

XLIII

3 There are also Idols formed by the intercourse and association of men with each other, which I call Idols of the Market Place, on account of the commerce and consort of men there. For it is by discourse that men associate, and words are imposed according to the apprehension of the vulgar. And therefore the ill and unfit choice of words wonderfully obstructs the understanding. Nor do the definitions or explanations wherewith in some things learned men are wont to guard and defend themselves, by any means set the matter right. But words plainly force and overrule the understanding, and throw all into confusion, and lead men away into numberless empty controversies and idle fancies.

XLIV

4 Lastly, there are Idols which have immigrated into men's minds from the various dogmas of philosophies, and also from wrong laws of demonstration. These I call Idols of the Theater, because in my judgment all the received systems are but so many stage plays, representing worlds of their own creation after an unreal and scenic fashion. Nor is it only of the systems now in vogue, or only of the ancient sects and philosophies, that I speak; for many more plays of the same kind may yet be composed and in like artificial manner set forth; seeing that errors the most widely different have nevertheless causes for the most part alike. Neither again do I mean this only of entire systems, but also of many principles and axioms in science, which by tradition, credulity, and negligence have come to be received.

But of these several kinds of Idols I must speak more largely and exactly, that the understanding may be duly cautioned.

The Scientist as "Worker Bee"

APHORISMS 95–96

XCV

Those who have handled sciences have been either men of experiment or men of dogmas. The men of experiment are like the ant, they only collect and use; the reasoners resemble spiders, who make

52

BACON

cobwebs out of their own substance. But the bee takes a middle course: it gathers its material from the flowers of the garden and of the field, but transforms and digests it by a power of its own. Not unlike this is the true business of philosophy; for it neither relies solely or chiefly on the powers of the mind, nor does it take the matter which it gathers from natural history and mechanical experiments and lay it up in the memory whole, as it finds it, but lays it up in the understanding altered and digested. Therefore from a closer and purer league between these two faculties, the experimental and the rational (such as has never yet been made), much may be hoped.

XCVI

We have as yet no natural philosophy that is pure; all is tainted and corrupted: in Aristotle's school by logic; in Plato's by natural theology; in the second school of Platonists, such as Proclus and others, by mathematics, which ought only to give definiteness to natural philosophy, not to generate or give it birth. From a natural philosophy pure and unmixed, better things are to be expected.

On reading...

- I want to encourage everyone to bring in questions that occur to you as you read.
- Examples:
 - This doesn't make sense...
 - I disagree, because...
 - I wonder why...

Rene
Descartes
(1596-1650)



Preliminary point about method

- The Meditations represents a way of investigating a philosophical question about knowledge.
- As you will see, this type of investigation involves quite a few “false starts” and blind alleys.
- Why do you think he does this?

Preliminary point about method

- My suggestion:
 - Descartes does this on purpose, because he wants us to be able to “see the truth” for ourselves. (i.e., it isn’t enough just to tell us the truth, we have to work through it ourselves)
 - (Keep this in mind when we get to Locke.)

- The Meditations contains quite a bit of prefatory material.
- Why do you think Descartes includes this?
- What is he trying to do in these passages?
- (Let's take a look at them)

- At the beginning of Meditation I, Descartes reflects on all of the things he knows, or at least thinks he knows.
- The project here is to find some knowledge that is certain.

TIME OUT

- Let's take a moment on this...
- Do you think it is important to have certain knowledge about anything? Do you think we ever attain it? Is it something that you would like to have?
- (Let's take 5 minutes and write a little on this. I'll set a timer. Ok, ready, go!)

- As a test for certainty, Descartes proposes this test: he will treat some piece of knowledge as uncertain if he can find some reason for doubt.
- And in fact, he will at first treat anything that can be doubted as if it were false, until something “compels his assent.”

- The next task is to consider what Descartes knows.
- Why doesn't he investigate each individual piece of knowledge?
- What does he do instead?

The Sources of Knowledge

- The first candidate is the knowledge we get from the senses
- What reasons do we have to doubt this as a source?

The Sources of Knowledge

- The first candidate is the knowledge we get from the senses
- What reasons do we have to doubt this as a source?
 - mistakes the senses can make
 - veridical dreams

The Problem of Global Skepticism

- How would you try to combat the problem?

- **How do you know that you are not dreaming/hallucinating/in a machine?**
- Because I have a criterion.
- **But how do you know that the criterion works?**
- Because...

WAKE TEST

- “Thus it is not improper to conclude from this that **physics, astronomy, medicine**, and all the other disciplines that **are dependent upon the consideration of composite things are doubtful...**
- ... and that, on the other hand, arithmetic, geometry, and other such disciplines, which treat of nothing but the simplest and most general things and which are indifferent as to whether these things do or do not in fact exist, contain something certain and indubitable.
- **For whether I am awake or asleep, two plus three make five, and a square does not have more than four sides.** It does not seem possible that such obvious truths should be subject to the suspicion of being false.”

- Descartes next turns his attention to his belief in an all-powerful God.
- What does he say about God as a source of error in these cases?

- “... long-standing opinions keep returning, and, almost against my will, **they take advantage of my credulity**, as if it were bound over to them by long use and the claims of intimacy.”
- ...Hence, it seems to me I would do well to **deceive myself by turning my will in completely the opposite direction and pretend for a time that these opinions are wholly false and imaginary**, until finally, as if with prejudices weighing down each side equally, no bad habit should turn my judgment any further from the correct perception of things.”

- It seems that Descartes is saying that he has many things which he regards as true, and yet is not able to say whether he can completely trust them.
- Yet his mind is lazy and falls into bad habits.
- How does he deal with this problem?

The Evil Genius

Diabolical
plans



Powers of
Deception

“Accordingly, I will suppose not a supremely good God, the source of truth, but rather an evil genius, supremely powerful and clever, who has directed his entire effort at deceiving me.”

A Horse of a Different Color...

- <https://blogs.otago.ac.nz/emxphi/>
- A question that will remain throughout: what does it mean to be a rationalist? An empiricist?