

## Philosophy, science and skepticism



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*What would life be like...*



*What would life be like...*



*...without cell phones?*

*Question everything?*

"The unexamined life is not worth living."



Socrates  
470-399 BCE

- One of the founders of Western philosophy, Socrates spent his life encouraging others to critically examine their fundamental values and assumptions.
- He was executed on charges of "corrupting the youth."
- But really others just found his relentless questioning annoying and threatening.

## Philosophy and skepticism

*Philo-sophia*: "the love of wisdom"

- Philosophy seeks understanding of the nature of reality and the significance of our lives by critically questioning our **deepest and most general beliefs**.
- It draws out basic assumptions, asking questions with **the wonder of a child**.
- It subjects all ideas and claims to careful analysis with **the precision of a lawyer**.

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*If everything is open to question how can we know anything at all?  
Is **wisdom** just knowing how little you know?*

*What do we know and how do we know it?*

*Have smart phones destroyed a generation?*

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*How can we even tell?*

*Should we be skeptical of the claim that they have or not?*

*What is the difference between philosophical and scientific skepticism?*

*What do we know and how do we know it?*

Science as organized skepticism:

- **Reject global doubts:** don't have such an open mind that your brains fall out.
- **Rely only on public evidence:** many eyes make all problems easy.
- **Trust strength in numbers:** if it can't be repeated it can't be trusted.
- **Test and test again:** make risky predictions and be willing to admit failure.
- **Resist theory:** let the the big picture emerge on its own.

*The role of philosophy*

Philosophical questions

*What is reality like?*

- Metaphysics or Ontology

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*What can I know?*

- Epistemology or Theory of Knowledge

*What should I do?*

- Axiology or Value Theory

*What is reality like?*

"Do we have free will or are we just cogs in a vast machine?"



Baron D'Holbach  
1723-1789

- Philosophical questions are often much more general than questions we normally encounter.
- Science seeks answers to particular questions about the regularities in the world of our experience and shrinks away from such general questions as this.
- This is a question in the sub-field of philosophy called metaphysics or ontology which seeks an account of the basic nature of reality.

*What can I know?*

"What can I know with any degree of certainty, when my senses so often mislead me?"



Rene Descartes  
1596-1650

- Descartes asked this question at the beginning of the Scientific Revolution when old "certainties" were revealed to be based on false assumptions.
- Answering it requires clarifying the nature and limitations of knowledge.
- This is a question in the sub-field of philosophy called epistemology or theory of knowledge.

*What should I do?*

"How should I live my life? In pursuit of power and money or in pursuit of wisdom?"



Socrates  
470-399 BCE

- This is not a question about how we do in fact live but of how we *should* live.
- Such *normative* questions challenge us to give an account of ourselves, our values and our assumptions.
- Socrates' question is a question in the sub-field of philosophy called value theory or axiology.

*More metaphysical questions...*

- What sorts of things exist -- only matter, or minds/souls/disembodied spirits as well?
- What is the relationship between minds and brains, and can we build an artificial brain that actually has a mind?
- How does order arise in the universe and what is the role of chance in the way things are?
- Are purposes built-in to things or imposed on them by us?

### *More epistemological questions...*



- How can we distinguish between appearances and reality?
- What counts as evidence, proof, or disproof and how does logical reasoning work?
- What is science and how do we distinguish it from pretenders to science?
- What is truth and is it singular or plural?

### *More value theory questions...*



- Is it ever wrong to pursue knowledge and is it sometimes just best *not* to know?
- Is science value neutral, with moral questions only relevant to the application of scientific findings?
- Is scientific knowledge public or private, and who should profit from new discoveries?
- What role should scientific findings play in social policy?

### *The philosopher's toolkit*



*Since philosophy asks us to examine all of our assumptions, there can be no fixed method for doing philosophy - historically speaking there have been many different approaches.*

Over time, however, certain useful principles have been developed.

- Explicitly state our assumptions – this can be a challenge since they *are* assumptions after all.
- Draw out their logical implications – do these assumptions fit well with each other and do they clash with other ideas we have?
- Make lots of distinctions. (Philosophers have a bad reputation for "splitting hairs," but we think it is important to be precise in our use of language.)