

## Class 1 - Thought Experiments, Intuitions, and X-Phi

### I. Overview

This course has three overlapping central themes.

1. Epistemology in a post-foundationalist world. (How can we know anything if everything can be doubted?)
2. Intuitions and their role in philosophy
3. Thought experiments, armchair philosophy, and Experimental Philosophy (X-Phi).

There are four sections to the course.

- Part I. Laying out the epistemological framework of the course.
- Part II. Some worries about human rationality, generally
- Part III. Data concerning intuitions and experiments
- Part IV. Reflecting on the lessons learned

In Part III, we will presume a range of philosophical background.

In Part IV, we will try to answer the question of whether intuitions play an appropriate role in philosophy.

Additionally, we will have both a class visit and a public lecture from Emily Esch, of College of Saint Benedict and Saint John's University.

Prof. Esch is an expert on and practitioner of experimental philosophy and will talk with us about how to conduct x-phi and her work on personal identity and x-phi.

### II. Intuitions and the Problem of Epistemology

Part I of the course lays out a central problem in epistemology:

1. Beliefs must be justified either foundationally or coherently.
2. No beliefs can be justified foundationally.
3. No beliefs can be justified coherently.
4. Some of our beliefs are justified.

This is a paradox.

Reflective equilibrium was supposed by some to resolve the problem.

The idea originates in Goodman's work in the philosophy of science, but got its name from Rawls in ethics.

The general idea is that our beliefs will be justified when we reach a balance between theory and evidence.

In science, the evidence is supposed to be observational.

In philosophy, the evidence is often intuitive.

Intuitions are often the results of thought experiments.

We will see a variety of characterizations of intuitions.

George Bealer takes intuition to be a simple seeming.

We do not mean a magical power or inner voice or special glow or any other mysterious quality. When you have an intuition that A, it *seems* to you that A... a genuine kind of conscious episode (Bealer).

Further, Bealer argues that they are not beliefs; not spontaneous inclinations to belief; not the raising to consciousness of nonconscious background beliefs; not guesses, or hunches; not commonsense opinions; not merely linguistic intuitions; and not judgments.

Alison Gopnik and Eric Schwitzgebel characterize intuition by the isolation from our consciousness of its development.

We will call any judgment an *intuitive judgment*, or more briefly an intuition, just in case that judgment is not made on the basis of some kind of explicit reasoning process that a person can consciously observe (Gopnik and Schwitzgebel).

While some philosophers, historically, have elevated intuition to a privileged epistemic position, Jonathan Cohen distances the contemporary notion from such views. He emphasizes the principled lack of sense evidence we have for our intuitions.

The term “intuition” here is not being used in the sense of Spinoza, Bergson, or Husserl. It does not describe a cognitive act that is somehow superior to sensory perception. Nor, on the other hand, does it refer merely to hunches that are subsequently checkable by sensory perception or by calculation. Nor does this kind of intuition entail introspection, since it may just be implicit in a spoken judgment. Its closest analogue is an intuition of grammatical well-formedness. In short, an intuition that *p* is here just an immediate and untutored inclination, without evidence or inference, to judge that *p* (Cohen).

In psychology, intuition is often aligned with automatic systems where reasoning is aligned with analytic systems.

Some people believe that their analytic systems, their ability to reason, overrides their intuitions.

Recent research has shown that our intuitions are actually in charge most of the time.

Jonathan Haidt uses an elephant-and-rider metaphor to describe the relationship between intuition and (the elephant) and reason (the rider).

Daniel Haybron, following Haidt, concurs.

The elephant dwarfs the rider, who will have a hard time getting the elephant to do anything it doesn't want to. Still, one might think that the rider is basically in charge. Yet Haidt points out that the analytic system is a recent - and still somewhat buggy - evolutionary innovation, appended to a basically intuitive brain that previously managed pretty well without it... It's not that intuition is a tool that a rational creature often employs; it's rather, to put it crudely, that reason is a tool that a basically instinctual creature often employs to accomplish certain ends. For the most part, the intuitive system sets the agenda (Haybron 246).

Robert Cummins worries that such intuitions are, being unlike empirical observations, impossible to calibrate.

Without calibration, intuitions are unstable and unreliable.

Even if philosophical intuition *can* be calibrated, it never *is* calibrated, because philosophers could have no possible use for intuition in a context in which the relevant theory was well enough settled to form the basis of a credible calibration test. Philosophical theory in such good shape is ready to bid the Socratic midwife farewell and strike out on its own in some other department. Philosophical intuition, therefore, is epistemologically useless, since it can be calibrated only when it is not needed (118).

Where scientific evidence is often experimental and may be obtained by observation, many philosophical claims are counterfactual.

Ernest Sosa tries to formulate the nature of intuition precisely, showing both its connection to belief and its distance from empirical observation.

At  $t$ , it is intuitive to  $S$  that  $p$  iff (a) if at  $t$   $S$  were merely to understand fully enough the proposition that  $p$  (absent relevant perception, introspection, and reasoning), then  $S$  would believe that  $p$ ; (b) at  $t$ ,  $S$  does understand the proposition that  $p$ ; and (c) the proposition that  $p$  is abstract (Sosa).

Many philosophical claims depend, for example, on the notion of possibility.

For example, consider Frank Jackson's modal argument for epiphenomenalism.

Jackson's epiphenomenalism is the claim that our conscious experience is not explicable in terms of physical laws and causal interactions.

Jackson argues that even if we knew everything about the physical world, including brains, we would be missing an explanation of human conscious experience.

No amount of physical information logically entails that another person is conscious.

Jackson's modal argument is just that zombies are possible.

My zombie is an organism just like me, except that it has no conscious experience.

There is a possible world with organisms exactly like us in every physical respect (and remember that includes functional states, physical history, *et al.*) but which differ from us profoundly in that they have no conscious mental life at all. But then what is it that we have and they lack? Not anything physical, *ex hypothesi*. In all physical regards we and they are exactly alike. Consequently there is more to us than the purely physical (Jackson 130-1).

If zombies are possible, then it is possible for the same physical structure (or functional organization) to correspond both to a conscious person and to a zombie.

Thus, consciousness could not be explained by any physical properties of an organism (or functional structure.)

There is a disputed modal intuition at the core of the zombie question.

Some of us believe that zombies are possible; others don't.

Other philosophical claims depend on the notion of necessity.

The justifications of CT and NT seem to be different in kind.

CT	There are four mangos in my fridge.
NT	$2 + 2 = 4$

One way to describe the difference between CT and NT is that NT is a necessary truth. It is true in all possible worlds.

Its truth is independent of any facts about the world.

We can in principle have no observational evidence about possibility and necessity.

The (let's call it) standard view about the difference between science and philosophy is that science proceeds empirically, from observation, whereas philosophy proceeds *a priori*, from intuitions.

But proper scientific method is actually not empirical in the way that the standard view depicts.

Consider Galileo's argument that all bodies fall at the same rate.

Aristotle had claimed that heavier bodies fall faster than lighter ones.

Consider two bodies, a heavier one falling at rate  $H$  and a lighter one falling at rate  $L$ .

According to Aristotle,  $H > L$ .

Galileo reasoned:

Consider a system consisting of the two bodies attached by a string.

The rate it falls is  $S$ .

Since, the light body falls more slowly than the heavier one, it should act as a drag on the system.

So,  $S < H$ .

But, since the system is heavier than the single heavy body, it should fall more quickly.

So  $S > H$ .

That's a contradiction.

To resolve the contradiction, Galileo supposed that all bodies fall at the same rate.

So,  $S = H = L$ .

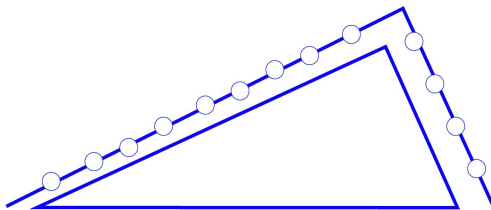
Notice that the evidence in this case is not observational at all.

The evidence is merely a thought experiment.

Concerning a different thought experiment, which concludes that a stone falling from a ship's mast will drop in the same place whether or not the ship is moving, Galileo writes:

So, you have not made a hundred tests, or even one? And yet you so freely declare it to be certain?... Without experiment, I am sure that the effect will happen as I tell you, because it must happen that way (Galileo, *Dialogue Concerning the Two Chief World Systems*, p 145).

For another example, consider the claim made by Simon Stevin, a 16<sup>th</sup> and 17<sup>th</sup> century mathematician and engineer, about the motion of a chain on a pair of inclined planes.



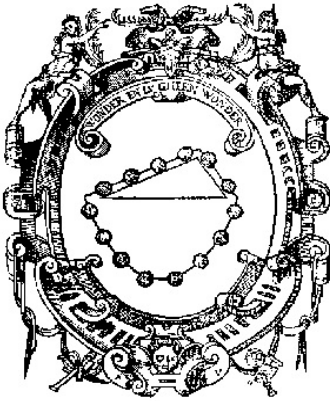
The question is whether the greater mass on the left will pull the chain to the left, or the steep incline on the right will pull it the other way.

Stevin's solution is that neither case can hold.

The chain must be in stasis, whatever the incline.

If it moved, then by adding a chain at the bottom, we could make a perpetual-motion machine.

And, Stevin's intuited, no perpetual-motion machine is possible.



Both Galileo and Stevin made scientific conclusions based on intuitive responses to thought experiments. Indeed, thought experiments are often called intuition pumps. The intuitions that they yield are evidence used in constructing philosophical theories. Sometimes the evidence produced by a thought experiment is unequivocal. In the cases I discussed from Galileo and Stevin, the thought experiments produced science. In other cases, our intuitions are not so clear.

Consider another example for epiphenomenalism from Frank Jackson, called the knowledge argument. One version of the knowledge argument centers on Mary, a color scientist. Mary knows all the physical facts about color, while living in a completely black-and-white world. In particular, she knows all of complete physics, all about the brain and light and the retina. But, she lives locked in a room with no color. Then, one day, the door is unlocked. When she leaves her room, she seems to learn something. Jackson concludes that we can have all the scientific knowledge that there is to have, and still learn something about qualia.

In response to Jackson's argument, Daniel Dennett asks us to consider giving Mary a blue banana. Would she think, "Oh, so that's what yellow looks like"? Or, would she think, "Why are you handing me a blue banana?" In this case, my intuitions are not categorical.

Recent work in psychology has undermined faith in intuition. Some of this work is more generally about human reasoning abilities. Many recent books engage the topic of human rationality. We will look a little at some of this. More recently, specific concerns about philosophical intuitions have been raised. Some research shows that some philosophical intuitions vary by culture. Other research shows that people's intuitions can be altered by irrelevant influences like framing. Still other research shows that some philosophical intuitions differ by gender. The overwhelming majority of philosophers, even today, are men. A recent paper argues that the gender discrepancy might be the result of gender differences in intuition. We will spend two-to-three classes on that paper.

The experimental philosophy movement derides traditional philosophy as [armchair philosophy](#). In contrast, x-phi is supposed to eliminate illegitimate reliance on intuition.

The work we do in this course will be multiply abstract. In addition to the abstractness of philosophy, generally, this course is mainly methodological. We will be looking at the ways in which we do philosophy.

[X-phi blog](#)  
[Hans Holbein](#)  
[Julian Beever](#)

III. Business

Syllabus, etc.