Lecture 11: Kant on Knowledge

Against pure rationalism and pure empiricism

Kant disagreed with both the rationalist and the empiricist. Against the rationalist, he argued that we cannot use pure thought and reasoning to get knowledge about the world. We also need sense experience.

Against the empiricists, he argued that our minds are not just blank slates or empty buckets that we fill up with knowledge as we get experience. Reason organises our sense experience in a certain way. They are not simple or unconnected, as for Hume.

4 types of knowledge

Kant distinguishes between 4 types of knowledge. The first distinction is semantic, about *meaning* and *information*, and the second is empirical, about the need for *data* or *experience*:

Analytic knowledge: propositions that are *true by definition*. If we understand the meaning of the concepts, we know that they are true. Analytic truths offer no new information. **Examples**: 'Bachelors are unmarried', 'Triangles have three sides', 'All bodies are extended (in space)'.

Synthetic knowledge: propositions that are *not true by definition*. To understand the meaning of the concepts is not enough to know its truth. Synthetic truths contain new information. **Examples**: 'Bodies are heavy', 'Bachelors are unhappy'.

A posteriori (empirical) knowledge: must be *justified based on data or experience*. We must check empirically whether it is true. Scientific knowledge is usually a posteriori. **Examples**: 'Bachelors are unhappy', 'Bodies are heavy', 'Swans can fly'.

A priori knowledge: its justification need *not be justified based on data or experience*. We must not check empirically whether it is true. **Examples**: 'Bachelors are unmarried', '5+7=12'. A priori truths are (1) necessary truths (they could not have been otherwise) and (2) universally true (without exceptions). There are no contexts in which they don't apply.

Analytic truths are true by definition, so are also a priori (not vice versa). ANALYTIC → A PRIORI

A posteriori truths extend our knowledge, so are also synthetic (not vice versa).

A POSTERIORI → SYNTHETIC

Hume thought that there were only two types of knowledge: analytic a priori truths (mathematics, logic) and synthetic a posteriori (empirical facts). Kant introduces a third option: *synthetic a priori*.

Philosophical and mathematical knowledge: synthetic a priori

Kant's contribution to epistemology is a type of truths that he calls *synthetic a priori*. While Hume saw mathematical truths such as '5+7=12' as analytic (and therefore a priori), Kant argues that the meaning of '= 12' goes beyond the meaning of '5+7'. They do not mean the same. '12' could also be '6+6'.

Mathematical truths are *a priori* because we don't need to check it empirically against data each time we perform a calculation, but *synthetic* because they give new information: 'The shortest distance between two points is a straight line', 'The angle sum of a triangle is 180 degrees'.

Philosophical statements are also synthetic a priori: 'Every event has a cause', 'A cause necessitates its effects', 'Things have identity over time', 'All knowledge should be empirical'. Philosophical truths (if they are indeed true) are *necessary*, *universal* and *don't depend on data or experience* (a priori). They also *give new information* beyond the concepts (synthetic).

Limitations and conditions of knowledge

Most philosophers thought that there are limits to our knowledge. Plato said that our senses blur our knowledge and Descartes was worried that his thoughts and senses were manipulated. Hume thought that we cannot know whether causes are linked to effects, whether things have identity over time or what will happen in the future.

Kant was influenced by Hume's philosophy, and he attempted to answer many of the problems Hume raised. Instead of trying to prove empirically that causes are linked to effects, Kant argued that we need causation to make sense of experiences. We organise our experiences into causes and effects. It is part of our human nature to ask *why* something happens.

In contemporary physics, time and space are treated as objects or processes that can be studied empirically (scientifically). To Kant, time and space are necessary conditions for experience. They are not objects of experience, or something we can observe. We simply cannot think outside time or space. Instead, all experience must happen *in* time and space.

Kant calls time, space and causation *a priori conditions of experience*. The experience of our own inner conscious minds is conditioned on a pre-understanding of time, since it happens in a sequence. In order to experience something as being outside of myself, I must have a pre-understanding of space. And to think of something happening before or after something else, I must have a pre-understanding of time.

What we cannot know: Ding an Sich

When we experience the world, we are not empty buckets, filling up on sense impressions and ideas. Instead, we organise all our experience into certain *categories*, such as time, space and causation. For instance, we typically ask *when* (time), *where* (space) or *why* (causation) something happened.

Our minds play an active role in our experience of the world. We see something as *wholes*, or substances (something Hume was sceptical of) and we see other things as background. We have an orientation in space: up, down, right, left, front, back, and also in time: before, after, now.

What we observe is influenced and organised *by us*. We do not see the world *as it is*, independently of our sensational or rational capacities. A bat might have different perceptions from us.

Kant distinguishes between things as they appear to us (*Ding für Mich*) and things how they are in themselves (*Ding an Sich*). We can never access Ding an Sich, but human rationality is such that we will still try. We will always try to go beyond our own limitations and know what we cannot possibly know.

Metaphysical speculations are typical examples of questions that can never be answered by us: Plato's world of Forms, the existence of God, what is outside time and space. These questions *transcend* (go beyond) human knowledge.

Discussion questions

Explain the difference between analytic, synthetic, a priori and a posteriori knowledge. Think of some examples.

What kind of truths are mathematical truths for Kant? What kinds of truths are they for Hume?

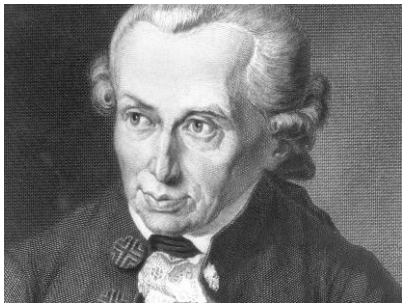
What status does Kant give to causation, time and space?

What is the status of philosophical truths? Why?

Explain the difference between Ding für Mich and Ding an Sich. Which can we access? Which will we always try to access?

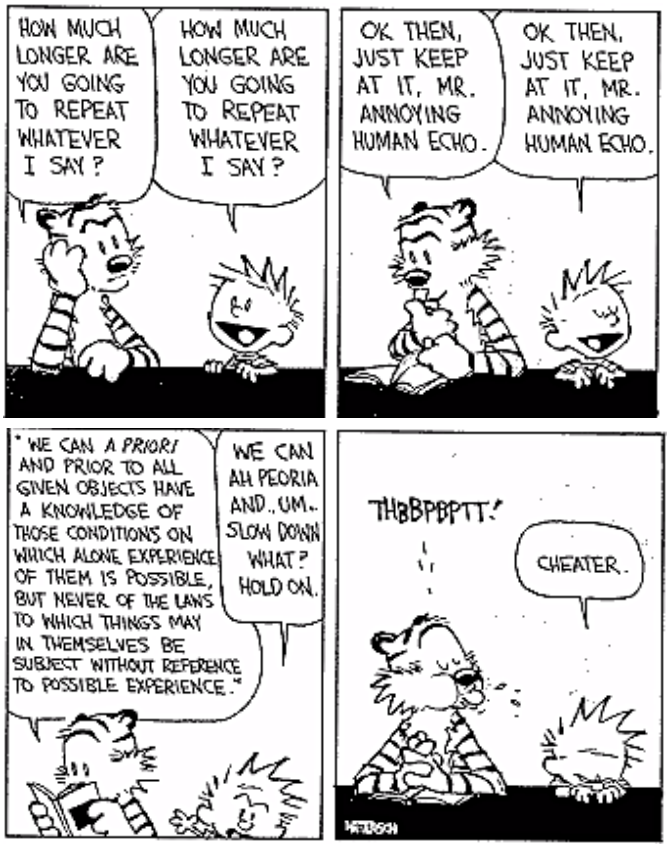
Do you agree with Kant that we always want to speculate beyond the limits of our knowledge?

Kant's philosophy is neither Rationalist nor Empiricist. Why?



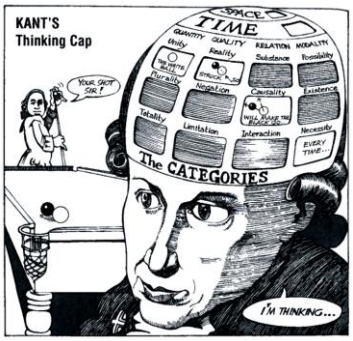
Kant (1724-1804)

Kant is known to be a difficult philosopher…



"For we can a priori and prior to all given objects have a knowledge of those conditions on which alone experience of them is possible, but never of the laws to which things may in themselves be subject, without reference to possible experience." (Kant, *Prolegomena to Any Future Metaphysics*, §17, pp. 44-5)

Unlike Hume, Kant thought that reason helps organise our sense experiences. He called these the *Categories*.



Émilie du Châtelet (1706 – 1749)

Enlightenment mathematician, physicist and philosopher

Kant cites du Châtelet in his first work "*Thoughts on the True Estimation of Living Forces*" published in 1747.

Multilingual and self-educated in mathematics and physics. Later met prominent mathematicians.

Written works

1737 Submitted a paper to the French Academy of Sciences "*Dissertation sur la nature et la propagation du feu" for a competition*. She suggested that different colors of light carried different heating power and anticipated the existence of infrared radiation. The paper was published and positively received by the scientific community. (She came second).

1738 Contributed to Voltaire's "*Elements of Newtonian Philosophy*", something he acknowledged, noting her superior intellect. (This influenced science in France).

1740 "*Institutions de physique*" in which she considered the philosophical basis of science and tried to integrate the conflicting Newtonian, Cartesian, and Leibnizian views. Du Châtelet demonstrated that the energy of a moving object is proportional not to its velocity, as had previously been believed, but to the square of its velocity.

1742 Translation of Newton's *Principia*, with her own notes, examples, derivations and clarifications. Upon discovering she was pregnant at the dangerous age of 42, du Châtelet worked 18 hours a day to complete the work before the due date. She completed the task and died of fever some days after giving birth. The work was published in 1759 and is still the definitive French translation.

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