



Lecture 11: Kant on Knowledge

Against pure rationalism and pure empiricism

Kant disagreed with both rationalist (Plato, Descartes, Astell). He didn't think that the highest form of knowledge could be gained through pure thought and reasoning. We also need empirical knowledge from sense experience.

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

For Hume, when we experience an apple, it is just the result of lots of simple sense impressions: shape, colour, taste, smell, sound. We get the apple only when we put these simple impressions together. Kant disagreed. We see the apple immediately as a whole, and it is the only way we can perceive things. The alternative is chaotic, as when someone born blind get to see for the first time: one would not know immediately what one is looking at – light, shadow, colours.

Even for an empiricist, not all knowledge comes from experience or logic, Kant would say. How about that very claim, about the source of true knowledge? Surely, one cannot find out from sense experience whether empiricists or rationalists are right! But also, we cannot just use logic to decide. It seems, then, that philosophical claims are not based in experience. So what kind of claims are they?

A new form of knowledge: synthetic a priori

Hume distinguished between two types of knowledge: analytic a priori truths (mathematics, logic) and synthetic a posteriori (empirical facts). Kant introduces a third option, and all philosophical and mathematical claims fall within that category. They are *synthetic a priori*.

Hume saw mathematical claims such as '5+7=12' as analytic, which means that '5+7' means the same as '12'. It is like saying that bachelors are unmarried or that triangles have three angles. Since analytic claims offer no new information, we can know about the *prior to* experience (*a priori*).

Kant argues that all mathematical truths offer new information. 'The shortest distance between two points is a straight line', 'the angle sum of a triangle is 180 degrees', '5+7=12'. He did however agree that these are not empirical claims, but can be known *prior to* experience (*a priori*). Think of it like this: no research council would pay for *a priori* research projects, for instance to check whether bachelors are in fact married.

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. We can explain it like this: '12' might also be the result of the calculations '6+6', '24/2', '3x4', and so on.

Philosophical statements are also *synthetic a priori* (informative, but not empirical): 'Every event has a cause', 'Things have identity over time', 'All knowledge must come from sense experience or logic', 'A virtue is the golden means between two vices'.

Philosophical claims (if they are true) are according to Kant *necessary, universal* and *without exceptions*. This is because they are *a priori*. In addition, philosophical claims are *synthetic*, meaning that they are informative. We know this because one can disagree and argue over whether

philosophical claims are true. Still, these claims are *a priori* because one cannot settle a philosophical argument by using our senses or by collecting empirical facts.

Limitations and conditions of knowledge

Most philosophers thought that there are some limits to what we can know. Plato said that our senses blur our knowledge and Descartes was worried that his thoughts and senses were being manipulated. Hume thought that we cannot know whether causes are linked to effects, whether our selves are the same 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 argues that *time, space and causality* are actually necessary conditions for having sense experience. We cannot experience anything, or understand what we perceive, without these conditions. For instance, we typically ask *when* (time), *where* (space) or *why* (causality) something happened.

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*: substances (whole things, such as apples), temporality (before, after, now), space (up, down, left, right, front, back), causes and effect relationships (necessary connections), to mention some.

What we cannot know: Ding an Sich

For Kant, our rational minds play an active role in our experience of the world. What we observe is always from our human perspective. Our empirical knowledge must necessarily be influenced and organised *by us*. We do not see the world *as it is, independently* of our sensational or rational capacities. A bat or a dog will 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*). This is a form of perspectivism: we see the world from our human perspective. Kant has also inspired the philosophical position called *phenomenology*: a phenomenon is what appears to us; what we experience. We shouldn't expect that the phenomena are the same as how things are independently of how we experience them.

According to Kant, 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 how Kant's theory of knowledge is not rationalist or empiricist.

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

Why are philosophical claims *synthetic a priori*, according to Kant? Can you explain what it means, *synthetic a priori*?

What does Kant say about causation, time and space?

Explain the difference between Ding für Mich and Ding an Sich.

Do you think Kant is right that not all knowledge comes from either reason or sense experience? Why, why not?

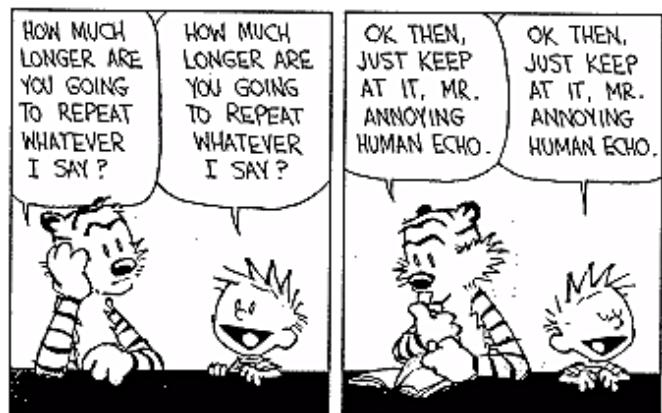
Do you agree with Kant that we always want to speculate beyond the limits of our knowledge?

What do you think about the idea that we don't experience the world directly, in itself?



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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