

A/Prof. Dirk Baltzly
School of Philosophy & Bioethics

Plato, Popper & Kuhn

Noêsis, Demarcation & the Sociology of Theory Acceptance

The thesis

- **This unit is difficult because these philosophers are asking importantly different questions with importantly different agendas.**
- **To succeed in it, you will need to make connections between them in spite of these differences.**
- **So let's be aware of the differences!**

Plato's theory of knowledge?

- **Rep 509d-11e distinguishes 4 states corresponding to different objects**
 1. Understanding (*noêsis*) – intelligible things
 2. Thought (*dianoia*) – intelligible things
 3. Belief (*pistis*) – sensible things
 4. Picture-thinking (*eikasia*) – images of sensible things
- **Which of these corresponds to what we call 'knowledge'?**

***Noêsis* confined to a small subset of things we would call 'knowledge'**

- **Justice is each part [of the soul or the city] performing its own function.**
- **Beauty is xyz, since it is because things are xyz that they are beautiful.**
 - Perfectly general truths corresponding to Socratic 'what is X?' questions.
- **'I am sitting in a room with other people' is not a potential object of *noêsis*.**

What understanding (*noêsis*) is contrasted with

- **Thought (*dianoia*) illustrated by geometry**
 - Use of hypotheses and visible diagrams
- **Belief and picture-thinking that have sensible objects**
 - Stability in object, rather than certainty in knower
 - Can give an account and teach others

What understanding is about: intelligibles

- **It is just to return what is owed.**
 - No more true than not true.
 - Made true (to the extent that it is) by what is no more just than not just (individual actions).
- **Beauty is xyz.**
 - Exceptionlessly true
 - Made true by something that is never not B.
 - But all sensibles are both B and not B.
 - So, a different kind of truth-maker, a Platonic Form

Questions about Forms

- **Corresponding to every common noun? Or only to ones with opposites?**
 - Beautiful, just, strong, equal, etc
- **Why are sensible things ruled out as inevitably insufficient truth-makers?**
 - Because they change?
 - Because they are inevitably characterised by opposites in different relations?

The “method” for getting understanding: dialectic, 510a

- **Like mathematics in dealing with non-sensible things grasped by the mind alone.**
- **But distinguished by**
 - Making no use of visible diagrams
 - And ascending to an ‘unhypothetical origin’

Forms as transformative

- **The political project of Republic**
- **Forms: the source of knowledge of what in fact is best for the community and the desire to realise this good above all else.**
 - Because philosophers = wisdom lovers = Form lovers, they are selfless technocrats who inevitably act so as to make the citizens as happy as they can be.

Summary

- **Plato's theory of understanding**
 - Narrower category than our 'knowledge'
 - Primarily concerned to differentiate among the things understood, thought, opined, etc
 - The things understood (Forms) affect not only what those who understand them can do, but also what they want to do.

Popper and the demarcation problem

- **How do we distinguish real science from pseudo-science?**
 - Astrology, psychoanalysis, Marxist historicism, racialism (Nazism)
- **How to solve Hume's problem of induction:**
 - All the A's observed so far have been B's.

– It is a law of nature that all A's are B's.

Knowledge does not grow by induction from past observations

- We come to every observing situation with conjectures already.
- The critical, scientific attitude looks not for confirmation, but for falsification

1. If H, then O

2. O

So what?

1. If H, then O

2. Not O

Not H! Now

we are getting

somewhere!

A fallibilist theory of knowledge

- **Always provisional. Hypotheses that have so far survived rigorous attempts to**
 - Derive surprising consequences
 - Which are then tested by observation
- **What we (think we) know = what we have not yet found to be something we can't know (because it's false).**

Pseudo-science

- **Tells a story that may purport to explain things, yet actually rules out the possibility of any falsifying evidence**
 - Makes no predictions
 - Uses such imprecise terms that anything observed is consistent with the theory

Popper's political project

- **Against holism, historicism, and utopian social planning. They lead to totalitarianism.**
- **Holism: individuals secondary to communities.**
- **Historicism: there is somewhere (e.g. the classless society; God's kingdom on earth) that the laws of historical development are inevitably taking us.**

The connection

- **Hegel's dialectic → Marx's theory of history**
 - Pseudo-science that looks for confirmation
 - Problems about the nature of its predictions
- **Given the intractable problems facing a serious social science, we should not try technocratic social engineering.**



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Summary of Popper

- A theory of ‘knowledge’ in a much wider sense – the critical (scientific) attitude.
- Popper’s question is about the method appropriate to knowing, as opposed to objects that it is directed upon.
- Implies a radical difference between physics and social “science”.

Kuhn's project

- When we look at the actual history of science, do scientists really abandon theories for the reasons that philosophers like Popper cite?
- Are subsequent scientific theories better theories about the same phenomena that earlier theories were about?

Normal science, anomalies, revolutions

- **Not a continuous effort to deduce risky predictions, but rather problem solving.**
- **Theories are not typically abandoned as a result of one anomalous result – not until the anomalies add up and/or there is the prospect of something better.**

Paradigms and progress

- **Paradigms partly constitute the phenomena they explain.**
 - Incommensurability: they don't give better accounts of the very same things.
 - Doubts about continuity of subject matter raises doubts about the narrative of closer approximations to the truth through scientific progress.

Naturalised epistemology and Kuhn

- **Some morals one could draw**
 - Contrary to Popper, there is no perfectly general “recipe” for improving our beliefs.
 - > Each case for theory change needs to be considered on its own merits.
 - Philosophy of science (epistemology) is not set up as a judge of good v bad science.

Popular social science reception of Kuhn

- **Popper’s “hard sciences” have been knocked off their pedestal!**
- **All knowledge is “socially constructed.” Far from being “objective,” even physics or biology actually serves to disguise someone’s agenda.**
 - Not implications that Kuhn himself accepted!

Different questions

- **Plato: what do we understand when we understand what Beauty is?**
- **Popper: how do distinguish real science from pseudo-science?**
- **Kuhn: how do scientists, in fact, decide when to give up on a theory and look for something new?**

Common theme: knowledge and authority

- **Apply it to some disputes about science and authority we face.**
 - The role of climate scientists in setting targets for CO₂ emission reductions
 - The status of neo-classical economic theory in the global financial crisis
- **Is there a real subject matter here to know?**
- **Is the theory testable?**
- **Does it disguise class interest?**

Additional resources

- **The Stanford Encyclopedia of Philosophy (refereed) plato.stanford.edu**
 - Excellent entries on Popper, Kuhn, Plato
 - Look at related entries
- **Options for further university study**
 - Monash: PHL2130 Plato; PHL2210 Thinking about Science; PHL2115 Making Knowledge
 - Uni Melbourne: 136-033 Science, Reason and Reality; 161-010