

No shared reasons

Reason, Relativism, and Reality

Spring 2005

Kuhn thinks critics are overreacting

"My views, it is said, make of theory choice 'a matter of mob psychology'. Kuhn believes, I am told, that` the decision of a scientific group to adopt a new paradigm cannot be based on good reasons of any kind, factual or otherwise'...Reports of this sort manifest total misunderstanding" ("Objectivity, Value Judgment, and Theory Choice")

What is the claim, then? We can start by drawing some distinctions.

Reasons for belief

*Explanatory reasons, or
"the reasons why"*

...whatever makes a thing happen, be it a dam breaking or scientists adopting a new theory. Explanatory reasons are a lot like *causes*. They may have little to do with what is supposed to make the belief reasonable.

Justifying reasons, or "my reasons for"

...these apply just to human acts and attitudes. A dam doesn't have reasons for breaking. Justifying reasons are the considerations that make an action or belief seem appropriate.

Deflationary interpretation

- Kuhn is talking just about explanatory reasons
- He thinks the reasons *why* revolutionaries adopt new theories don't work for reactionaries
- It's good to be reminded that scientists too make choices for practical reasons -- funding, professional advancement, etc.
- But ultimately this is trivial; it's just *obvious* that the considerations influencing the revolutionaries are not as effective with the reactionaries, because the latter by definition don't change

No good *justifying* reasons

This must be the claim. But it too could mean various things.

1. Weak under determination
2. Strong underdetermination
3. No good reason at time of revolution
4. No new reasons acquired during normal science
5. No good reasons ever

Weak underdetermination

*The experimental evidence does not **prove** the new theory is right; it is logically consistent with another theory being correct.*

Big deal, one might say. Logical consistency is a very weak requirement. Experimental evidence does not **prove** there's a table here; still it seems a reasonable thing to believe!

Strong underdetermination

Experimental evidence is in principle unable to decide between our theory and some alternative; both predict the very same observations.

There is more to being a good theory than predicting the right observations. A good theory should be simple, non-ad-hoc, convenient, applicable, easy to integrate with other theories. Our theory although empirically no better might have more of these "super-empirical virtues."

No good reasons to switch

Sticking to the old theory is not only not irrational, it is just as reasonable as switching.

This is strong enough to be surprising, but does Kuhn believe it? He does suggest at times that one switches allegiances before the new theory has racked up much of a record; one has a gut theory that this more promising even if it's still got a long way to go. If reactionaries' guts tell them it isn't more promising, how is their resistance unreasonable? History is written by the victors. Maybe the new theory becomes rationally compelling only after some normal science has happened.

No good reasons later

During periods of normal science, the accepted theory is never tested, but rather presupposed: it functions as an unquestioned background assumption.

"[Normal science's] object is to solve a puzzle for whose very existence the validity of the paradigm must be assumed. Failure to achieve a solution discredits only the scientist and not the theory" (80).

No good reasons ever

If initially we're putting our bets on a new horse, and later we only ride the horse rather than race it, then [dropping the metaphor] we have no more reason to believe the theory at the end of normal science than at the beginning.

From this it would seem to follow that "Lifelong resistance...is not a violation of scientific standards" (151). Does Kuhn really believe this? Are you convinced?