Twitter Thread by Oliver Maclaren





@davidpapineau I mean, like I said, I basically do agree 'the problem of induction is a pseudo-problem, because we don't reason inductively in science'. I think attempts justify induction are a dead end, and it's to Popper's credit that he took that seriously & worked on alternatives

<u>@HenningStrandin</u> <u>@davidpapineau</u> (And it's not like Popper didn't write a whole bunch on auxiliary hypotheses and ad-hoc falsification as well...most of people's concerns like this he raised himself and discussed, whether or not you agree with his resolutions)

<u>@HenningStrandin</u> <u>@davidpapineau</u> My general position is that all attempts to define scientific method ultimately fail, but Popper is generally more interesting and useful than most. Confirmation/inductive logics are among the most naive and, aesthetically, are gross ■

<u>@HenningStrandin</u> <u>@davidpapineau</u> Here's the naive view of a well-known Bayesian statistician on induction and deduction, who believe Popper was basically correct. There's certainly some naive philosophy bits, but the important thing to me is that it's *interesting*: https://t.co/fNsFi6tMiD

<u>@HenningStrandin</u> <u>@davidpapineau</u> In terms of the screenshot of what I wrote, here's the basic idea. You can tell me if it's Popper or Bacon or whatever:

<u>@HenningStrandin</u> <u>@davidpapineau</u> If you place no restrictions on your theories & try to learn which is true from data, you'll get nowhere: math. impossible. If you place strong restrictions on theories it is possible to at least learn something: you can learn when a restriction is too strong and hence 'false' 1/

<u>@HenningStrandin</u> <u>@davidpapineau</u> However if the strong restrictions are consistent with data, this doesn't imply they are true - there is always a theory with weaker restrictions that is equally consistent with the data 2/

<u>@HenningStrandin</u> <u>@davidpapineau</u> Hence there is an asymmetry in learning: in the most general setting all we can do is rule out some class of theories, & these are the ones based on strong/bold constraints. This asymmetry comes from the math. impossibility of useful learning without regularity conditions 3/

<u>@HenningStrandin</u> <u>@davidpapineau</u> to me the problem of induction roughly translates to 'can we learn without regularity assumptions?', the answer for me being 'no'. Popper then says 'we can however falsify some regularity conditions when they're too strong. But we can never say regularity conditions are true' n/n