

You must answer 4 of the following 5 questions. For each one that you do answer, you should write a (roughly) 400-600 word short answer essay. Make sure you answer the question asked and not some other question. These essays will be due on Friday, February 21st before 1:00 pm. All essays should be emailed to me at joel.velasco@ttu.edu in one single electronic document saved in an easily readable format (.doc, .pdf, .txt...)

1) A.J. Ayer and other positivists said that the meaning of a statement is tied up with its verifiability conditions. Popper said that scientific statements have to be falsifiable. Are these just two different ways of saying the same thing, or is there a substantial difference between the two views?

- a. Explain what, if any difference there is here
- b. Is some kind of testability criterion a good way to demarcate scientific claims from non-scientific claims?

2) Is "Scientific Creationism" a scientific theory? Is it religious doctrine? Plantinga seems to accept that there is a distinction between scientific claims and religious claims, but argues that our beliefs about each should influence each other. How does this view fit or not fit with what you said above about Scientific Creationism? McMullin says at various points that he disagrees with Plantinga. But what exactly do they disagree about? Is it merely the evidence for various claims? Or does McMullin also disagree with Plantinga's approach to conflicts among beliefs?

3) Hume argues that we can never be justified in inferring certain kinds of facts about unobserved things on the basis of observed things. But we do this all the time in science. Sometimes when we perform an experiment, we feel confident about what the outcome will be if we perform a related experiment in the future.

a) Is this confidence ever justified? Under what kinds of circumstances?

b) How does your answer in (a) deal with the case of someone who looks into a crystal ball to predict the motion of the earth around the sun next month?

Or alternatively, answer b* instead of b

b)* How does your discussion bear on Goodman's worry about predicates like 'Grue'?

(TURN OVER)

4) In section 7 of his 'Notes on Bayesian Confirmation Theory', Strevens argues that BCT does not really solve the traditional problem of induction, however, he also thinks that Bayesianism does make some progress. Why does he think these two things? Do you think he is right? Can the kinds of constraints he is talking about be justified? Or are they just stipulations? Is Bayesianism on the right track? If there are still obstacles, does thinking about the Bayesian view make you think that you could have something like the solution that Strevens thinks we are looking for? Or is there some reason to think that this is the best you can do – you just have to build things in apriori that are not actually justified?

5) It is clear that individual hypotheses such as Newton's law of gravitation don't 'by themselves' entail any particular observations but only do so along with some 'auxiliary assumptions'. One conclusion you could draw from this is a kind of radical holism that says no individual claims are ever confirmed but only whole sets of beliefs and theories all 'at the same time'. Is this large step justified?

**** - Now answer one of the following two parts:

a) How does 'the holistic argument' affect the science vs. religion demarcation problem? Does it show there can't be such a demarcation?

b) It seems as though Bayesian Confirmation Theory embeds a kind of holism – whether a particular hypothesis is confirmed by a particular piece of evidence depends on your background knowledge. Does it follow that confirmation is subjective and that we cannot ever say objectively that this observation confirms this theory?