Final Study Guide Phil 15: Knowledge and Its Limits

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Instructions

Please bring a bluebook or two and a couple of pens. Please also bring your student ID. You will not be allowed to talk, use any books or notes, or listen to your iPod.

The topics and issues below give you a list of material that we either went over in class or that was in the readings or both. Study them carefully. The midterm exam will consist of three parts. The first part will be eight or so identification questions. The second will consist of three or so short-answer questions where I expect a paragraph or so as answer. In the third part, you will find two essay questions which will require several paragraphs to answer adequately.

The material up to the midterm is really the same as for the midterm, which is why I haven't changed it. The final is cumulative, so you are also responsible for this material. Having said that, you should expect a slight over-emphasis on the final of the material after the midterm.

Introduction

- Russell on the value of philosophy
- rationalism vs. empiricism
- rationalism: Descartes and Leibniz
- theories of perceptual knowledge
- Locke: representationalism
- Berkeley: idealism
- Hume: scepticism and argument from illusion
- Russell's sense data theory
- Kant's analytic-synthetic distinction (and a priori vs. a posteriori)
- A priori knowledge
- Plato's theory of forms
- The paradox of knowledge and Plato's solution (innate knowledge)
- Kant's synthetic a priori
- Russell's assessment of Kant
- Russell's theory of universals
- A priori knowledge according to Russell

Conceptual analysis

- What does "analyzing a concept" mean?
- necessary and sufficient conditions
- Standard analysis of knowledge
- Ayer and the right to be sure that p
- Gettier counterexamples and their structure

Scepticism

- Descartes's First and Second Meditation (in some detail)
- some early objections to Descartes
- Chalmers and the Matrix Hypothesis
- Computational, Creation, and Mind-Body Hypotheses
- Chalmers's anti-scepticism
- The sceptical argument reconsidered: brains in vats
- epistemic closure under entailment
- semantic externalism
- Twin Earth thought experiment
- application of semantic externalism to brains in vats
- Brueckner's reconstruction of Putnam's argument
- inferential knowledge
- Moore's direct realism
- Moore's proof of an external world
- Hume's principles
- Moore and how he turns the table on the sceptic

Justification

- architecture of knowledge
- coherentism
- basic problem for foundationalism
- linear vs. non-linear justification
- Will's criticism of foundationalism

- mediately and immediately justified beliefs
- Alston's Minimal Foundationalism
- Lehrer's criticism of foundationalism
- internalism vs. externalism about justification
- argument for internalism: new evil demon
- Goldman's process reliabilism
- objections to reliabilism: new evil demon, generality problem
- Stalnaker's start in the middle of things

Induction and confirmation

- types of non-inductive inferences
- Hume's problem of induction
- Hume's solution to his problem of induction
- Popper's solution to the problem of induction: deductivism and falsificationism
- Reichenbach's solution to the problem of induction: pragmatic vindication
- Instantial and hypothetico-deductive model of confirmation
- Hempel's raven paradox and its resolutions
- Goodman's "new riddle of induction" and its resolutions (incl. Bayesian solution)
- Kolmogorov axioms of probability theory
- conditional probability
- Bayesian updating of beliefs, including some of the examples
- Bayes's theorem (both versions)
- subjectivist Bayesianism
- "Dutch book" theorem and its meaning
- problems of Bayesianism: priors and old evidence

Epistemology naturalized

- characterization of naturalism, incl. three different types
- Quine's main theses in "Epistemology naturalized"
- Quine's anti-foundationalism and the circularity charge against naturalism
- Quine's naturalist move

A neurocomputational perspective

- sentential view of theories and its problems
- schematic neuron; axon, synapse, synaptic weight, polarity (stimulatory or inhibitory)
- neuron-like processing unit of artificial network
- artificial neural networks and how they act as functions
- Input and output vector, hidden unit activation vector, transformation of input activation vector to output activation vector
- theories/knowledge according to Churchland's neurocomputational perspective
- internal cognitive spaces
- three levels of learning: structural, dynamical, cultural
- recurrent neural network
- supervised and unsupervised learning
- Hebbian learning

Feminist epistemology

- characterization of feminist epistemology and philosophy of science
- sex and gender; androcentric and gynocentric representations; gendered knowledge
- feminist standpoint theory and its problems
- feminist postmodernism and its problems
- feminist empiricism and its problems
- feminist science criticism: bias as error and bias as resource