

Epistemology: Course Introduction

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Department of Philosophy

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Outline

- ① **Logistics**
- ② What is philosophy
- ③ What is epistemology
- ④ Course content

Course Information

- Course Name: Epistemology
- Course Level: Undergraduate
- Class Time: Wednesdays 1:30 - 3:00pm
- Course Website:
<https://comphiacademy.github.io/epist20s/>
- Online Class Platform: www.huiyizhuo.com
- Course Forum: Piazza

Course Information

- Instructor: Renjie Yang
- Email address: 6687@cnu.edu.cn
- Office Hour: Wednesdays 3:00 - 4:00pm
- Office Location: Department Bulding 803

Course Level

- This course is offered at a level accessible to students from all backgrounds.
- Prerequisite: one introductory philosophy course; open-minded

Aim of the Course

- Introduce some important issues and well-known arguments in epistemology.
- Provide practice in critical thinking skills.
- Provide practice in succinct, clear writing and presentation.
- Cultivate the ability of conducting research and self-learning on any topic of interest.

Course Requirements

- Critical Thinking
- Class Participation
- Careful Reading
- Language

Course Project

- The purpose of the project is to inform you how to conduct research on an issue you find interesting or important.
- You can either choose one of the suggested projects I provide or pick your own topic.
- The suggested topics will be posted by the end of the second week.
- You may work by yourself or in teams of two or three, but no more.

Course Project

You will provide:

- ① A midterm report
- ② A presentation
- ③ Final paper

Course Project

Midterm Report:

- Due April 22 before 24:00
- 2-3 pages
- Include:
 - ① A high-quality introduction of the issue and the background;
 - ② A precise summarization of at least one paper/book chapter in your project readings
 - ③ What remains to be done

Course Project

Presentation:

- 10 minutes presentation
- 5 minutes for comment and response
- Time: June 3 and June 10

Course Project

Final Paper:

- 4-5 pages
- Due June 17
- Submit by email: 6687@cnu.edu.cn

Course Evaluation

- The final grade follows a Pass/Fail mode.
- I will keep a more precise grade just for the record:
Presentation/Paper/Participation: 30/60/10

Readings

The required textbook is
Richard Feldman. (2003) *Epistemology*

Readings

Supplementary readings

- Clark Glymour. (2015) *Thinking Things Through*
- Jennifer M. Groh. (2014) *Making Space*
- E. Bruce Goldstein. (2015) *Cognitive Psychology*
- Edward E. Smith, Stephen M. Kosslyn. (2007) *Cognitive Psychology*
- Stuart J. Russell, Peter Norvig. (2010) *Artificial Intelligence*
- Eric Bonabeau's paper on agent-based modeling

Readings

- We will read selected chapters or sections, not the whole book.
- I will send the reading materials to you via email one week before the corresponding class.

Questions?



Outline

- 1 Logistics
- 2 **What is philosophy**
- 3 What is epistemology
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What is Philosophy

Wilfrid Sellars (1962): philosophy is concerned with “how things in the broadest possible sense of the term hang together in the broadest possible sense of the term.”

The Aim of Philosophy

Philosophy aims at an overall picture of what the world is like and how we fit into it.

Some Misleading Characterizations of Philosophy

- Philosophy is “love of wisdom”.
- Philosophy is the history of philosophy.
- “What is philosophy” is itself a philosophical issue.
- Philosophy is of no use but of great use.

Main Topics of Philosophy

- Metaphysics: the structure of the world
- Epistemology: how we can acquire knowledge of the world
- Ethics: what actions and dispositions are best

Philosophy and Other Disciplines

But wait...

Philosophy and Other Disciplines

- Isn't the question of the structure of the world part of physics?
- Aren't questions about how we acquire knowledge and about our minds part of psychology?

Philosophy and Other Disciplines

- What are metaphysics and epistemology, after all?
- What are the methods by which these subjects are supposed to be pursued?
- How are they different from physics and psychology and other scientific subjects?

Philosophy and Other Disciplines

- Isn't the question of the structure of the world part of physics?
- Aren't questions about how we acquire knowledge and about our minds part of psychology?

The Value of Philosophy

There are a lot of questions that are usually not addressed in physics or psychology or other scientific subjects but that still seem to have something to do with them.

The Value of Philosophy

Consider the following examples:

- How can we know there are particles too small to observe?
- What constitutes a scientific explanation?
- How do we know that the process of science leads to the truth, whatever the truth may be?
- What is meant by “truth” ?

The Value of Philosophy

Consider the following examples:

- Does what is true depend on what is believed?
- How can anyone know there are other minds?
- What facts determine whether a person at one moment of time is the same person as a person at another moment of time?
- What are the limits of knowledge?

The Value of Philosophy

Consider the following examples:

- How can anyone know whether she is following a rule?
- What is a proof?
- What does “impossible” mean?
- What is required for beliefs to be rational?

The Value of Philosophy

Consider the following examples:

- What is the best way to conduct inquiry?
- What is a computation?
- How should people behave?
- How should social and political institutions be organized and ruled?

The Value of Philosophy

- The questions have something to do with physics or psychology (or with mathematics or linguistics or political science), but they aren't questions you will commonly find addressed in textbooks on these subjects.
- The questions seem somehow too fundamental to be answered in the sciences.

The Value of Philosophy

- They seem to be the kind of questions that we just do not know how to answer by a planned program of observations or experiments.
- And yet the questions don't seem unimportant; how we answer them might lead us to conduct physics, psychology, mathematics, or other scientific disciplines very differently.

The Value of Philosophy

These are the sorts of questions particular scientific disciplines usually either ignore or else presume to answer more or less without argument.

The Value of Philosophy

But what can philosophers possibly have done with them that is of any value?

The Value of Philosophy

- The philosophical tradition contains a wealth of proposed answers to fundamental questions about metaphysics and epistemology and ethics.
- On occasion the tradition of attempts at philosophical answers has led to theories that seem so forceful and so fruitful that they become the foundation for entire scientific disciplines or moral perspectives

The Value of Philosophy

Prominent Examples:

- What is a demonstration, a proof? → Computer Science
- What is rational belief? → Bayesian Statistics, Rational Choice Theory (Economics)
- What is the structure of mind? What is a proof? → Cognitive Science

The Value of Philosophy

why philosophy was worth doing? Because it **was** the most creative subject:

- Rigorous philosophical speculation formed the basis for much of contemporary science
- It literally created new sciences.
- The role of philosophy in forming computer science, Bayesian statistics, the theory of rational decision making, and cognitive science emerged in the last 100 years.

The Value of Philosophy

But if that is why philosophy **was** worth doing, why is it still worth doing?

- Because not everything is settled and there may be fruitful alternatives even to what has been settled.
- There can be reasonable doubts about the foundations of some of these disciplines.
- There is a vast space of further topics that require philosophical reflection, conjecture, and argument.

Questions?



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What Is Epistemology

- The theory of knowledge, or epistemology, is the branch of philosophy that addresses philosophical questions about knowledge and rationality.
- Epistemologists are primarily interested in questions about the nature of knowledge and the principles governing rational belief.
- They are less focused on deciding whether there is knowledge or rational belief in specific, actual cases.

The Standard View

In the ordinary course of events, people claim to know many things and they attribute knowledge to others in a variety' of cases.

What we know

a) Our immediate environment:

- “There’s a chair over there.”
- “The radio is on.”

b) Our own thoughts and feelings:

- “I’m excited about the new semester.”
- “I’m not looking forward to filling out my tax forms.”

What we know

c) Commonsense facts about the world:

- “France is a country in Europe.”
- “Many trees drop their leaves in the fall.”

d) Conceptual truths:

- “All bachelors are unmarried.”
- “Red is a color.”

What we know

e) Mathematics:

- “ $2 + 2 = 4$ ”
- “ $5 \times 3 = 15$ ”

f) Conceptual truths:

- “All bachelors are unmarried.”
- “Red is a color.”

What we know

g) The past:

- “George Washington was the first president of the United States.”
- “President Kennedy was assassinated.”

h) The future:

- “The sun will rise tomorrow.”
- “The Chicago Cubs will not win the World Series next year.”

What we know

i) Mental states of others:

- “My neighbor wants to get his house painted.”
- “That person over there who is laughing hard found the joke he just heard funny.”

j) The future:

- “Gratuitous torturing of infants is wrong.”
- “There’s nothing wrong with taking a break from work once in a while.”

What we know

k) Religion:

- “God exists.”
- “God loves me.”

The Standard View

SV1. We know a large variety of things in categories (a) - (k)

Questions?



Sources of knowledge

- 1 Perception
- 2 Memory
- 3 Testimony
- 4 Introspection
- 5 Reasoning
- 6 Rational insight

The Standard View

SV2. Our primary sources of knowledge are (1)-(6).

The Conditions of Knowledge

Q1. Under what conditions does a person know something to be true?

The Conditions of Justification

Q2. Under what conditions is a belief justified (or reasonable or rational) ?

Challenges to the Standard View

The Skeptical View: we know far less than The Standard View says we know.

Q3. Do we really have any knowledge at all? Is there any good response to the arguments of the skeptics?

Challenges to the Standard View

The Naturalistic View: we should take empirical science into account .

Q4. In what ways, if at all, do results in natural science, especially cognitive psychology, bear on epistemological questions? Do recent empirical results undermine The Standard View?

Challenges to the Standard View

The Relativistic View: There should be room for reasonable disagreement.

Q5. What are the epistemological implications of cognitive diversity? Are there universal standards of rationality, applicable to all people (or all thinkers) at all times? Under what circumstances can rational people disagree with one another?

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Course Topics

1. Mathematical Knowledge

- Mar 4, Proofs and Mathematical Knowledge
- Mar 11, Frege and Modern Logic

Course Topics

2. Scientific Knowledge

- Mar 18, Skepticism and Empirical Knowledge
- Mar 25, Bayesian Epistemology

Course Topics

3. Sources of Knowledge

- Apr 1, Neuroscience: Perception
- Apr 8, Neuroscience: Memory
- Apr 15, Cognitive Psychology: Knowledge
- Apr 22, Cognitive Psychology: Reasoning

Course Topics

4. Machine Knowledge

- Apr 29, Artificial Intelligence: Machine Learning
- May 6, Agent-Based Modeling

Course Topics

5. Theory of Knowledge

- May 13, The Traditional Analysis
- May 20, Evidential Theories
- May 27 Non-evidential Theory

Questions?



Reference

- Clark Glymour. (2015) *Thinking Things Through: An Introduction to Philosophical Issues and Achievements*, 2nd edition. A Bradford Book.
- Richard Feldman. (2003) *Epistemology*. Upper Saddle River, N.J.: Prentice Hall