

## Lecture 8: Theory of Knowledge: The Traditional Analysis

*Lecturer: Renjie Yang*

## 8.1 Epistemological Questions

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.

- For example, it is not the epistemologist's business to rule on whether it is now reasonable to believe that there is life on other planets.
- It is the epistemologist's business to try to develop a general theory stating the conditions under which people have knowledge and rational beliefs.

Socrates' Method:

1. Locate a statement confidently described as common sense.
2. Imagine for a moment that, despite the confidence of the person proposing it, the statement is false. Search for situations or contexts where the statement would not be true.
3. If an exception is found, the definition must be false or at least imprecise.
4. The initial statement must be nuanced to take the exception into account.
5. If one subsequently finds exceptions to the improved statements, the process should be repeated.

According to Socrates,

- The truth, in so far as a human being is able to attain such a thing, lies in a statement which it seems impossible to disprove.
- It is by finding out what something is not that one comes closest to understanding what it is.
- The product of thought is superior to the product of intuition.

Following Socrates' method, let's begin by stating in a systematic way some commonly (but not universally) held ideas about what we know and how we know these things. We will call this collection of ideas *The Standard View*.

## 8.2 The Standard View

Most of us think we know quite a lot. The following list identifies some general categories of these things and gives examples of each.

- 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.”
- c Commonsense facts about the world:  
“France is a country in Europe.”  
“Many trees drop their leaves in the fall.”
- d Scientific facts:  
“Smoking cigarettes causes lung cancer.”  
“The earth revolves around the sun.”
- e 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.”
- f The past:  
“George Washington was the first president of the United States.”  
“President Kennedy was assassinated.”
- g Mathematics:  
“ $2 + 2 = 4$ ”  
“ $5 \times 3 = 15$ ”
- h Conceptual truths:  
“All bachelors are unmarried.”  
“Red is a color.”
- i Morality:  
“Gratuitous torturing of infants is wrong.”  
“There’s nothing wrong with taking a break from work once in a while.”
- j The future:  
“The sun will rise tomorrow.”  
“The Chicago Cubs will not win the World Series next year.”
- k Religion:  
“God exists.”  
“God loves me.”

Thus, the first thesis within *The Standard View* is

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

If (SV1) is right, then there are some ways we come to know the things it says we know; there are some sources for our knowledge.

Here is a list of our sources of knowledge:

- a Perception
- b Memory
- c Testimony
- d Introspection
- e Reasoning
- f Rational insight

The second thesis in *The Standard View* is

**SV2.** Our primary sources of knowledge are (a)-(f).

*The Standard View*, then, is the conjunction of (SV1) and (SV2).

Following Socrates' method, we need to critically examine *The Standard View*. Numerous questions arise once we reflect on it. In this course, we will discuss the following two questions.

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

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

Let's try to come up with an answer to (Q1) first.

## 8.3 The Traditional Analysis of Knowledge

*The Standard View* says that we do have knowledge, but what is knowledge?

The ultimate goal of this question is to find out the sufficient and necessary condition that characterize everything we consider as "knowledge", while excluding everything that are not.

Before investigating (Q1), let's first think about various types of knowledge and their relations:

- a Knowing an individual: S knows x.  
"The professor knows J. D. Salinger."
- b Knowing who: S knows who x is.  
"The student knows who J. D. Salinger is."
- c Knowing whether: S knows whether p.  
"The librarian knows whether there is a book by J. D. Salinger in the library."
- d Knowing when: S knows when A will (or did) happen.  
"The editor knew when J. D. Salinger's book would be published."

e Knowing how: S knows how to A.  
“J. D. Salinger knows how to write.”

f Knowing facts: S knows p.  
“The student knows that J. D. Salinger wrote *The Catcher in the Rye*.”

“Knows that” sentences report that a person knows a certain fact or proposition. These sentences are said to express propositional knowledge.

One initially plausible idea about the connection between these various ways in which the word “knows” is used is that “knows that” is fundamental and that the others can be defined in terms of it.

For example, “knowing whether” could be written as

- Either the librarian knows that there is a book by J. D. Salinger in the library or the librarian knows that there is no book by J. D. Salinger in the library.

More generally, We can express the point about the connection in terms of a definition

**D1.** S knows whether p  $=_{df}$  Either S knows p or S knows  $\neg$ p.

“Knowing when” can be defined similarly:

**D2.** S knows when x happens  $=_{df}$  There is some proposition saying that x happens at some particular time and S knows that proposition. (There is some proposition, p, where p is of the form “x happens at t” and S knows p.)

However, not all “knowing” can be defined in this way.

- To know someone or something is not to have propositional knowledge of some facts about that person or thing.
- S knows how to A  $=_{df}$  S is able to A

We will consider only propositional knowledge.

Now let’s consider *The Traditional Analysis of Knowledge* (the TAK). Here is the formulation:

**TAK.** S knows p  $=_{df}$

1. S believes p,
2. p is true,
3. S is justified in believing p.

Something along these lines can be found in various sources. In Plato’s dialogue *Meno*, Socrates says:

they are not willing to remain long; and they escape from man’s mind, so that they are not worth much until one ties them down by (giving) an account of the reason why. . . . After they are tied down, in the first place they become knowledge, and then they remain in place.

According to one possible interpretation of this passage, to be able to give “an account” of an opinion is to have a reason or justification for that opinion. And one idea in the passage is that this is needed in order to have knowledge.

Now let’s look closer at the conditions of *TAK*.

## 1. Belief

When you consider any statement, you are faced with a set of alternatives: You can believe it, you can disbelieve it, or you can suspend judgment about it.

For simplicity, think of disbelieving a proposition as being the same thing as believing the negation (or denial) of that proposition. So disbelieving that George Washington was the first president is the same as believing that it is not the case that George Washington was the first president. Suspending judgment about the proposition is to neither believe it nor disbelieve it.

The concept of proposition: suppose a French child is taught that George Washington was the first president of the United States. Thus, it becomes true that

Pierre believes that George Washington was the first president of the United States.

It can be true even if Pierre does not speak a word of English.

One way to understand these matters is as follows. Sentences are used to express certain thoughts or ideas. Philosophers use the word proposition to refer to these items. The English sentence Peter uses and the French sentence Pierre uses express the same proposition. Belief is fundamentally a relation to a proposition.

Therefore, sentences differ from the propositions they are used to express, and belief is fundamentally an attitude one takes toward propositions.

## 2. Truth

What is it for something to be true? One simple and widely accepted answer to this is contained in the *correspondence theory of truth*.

**CT.** A proposition is true if and only if it corresponds to the facts (iff the world is the way the proposition says it is). A proposition is false iff it fails to correspond to the facts.

There are several consequences or implications of (CT) that is worth mentioning:

1. Whether a proposition is true or false does not depend in any way upon what anyone believes about it.
2. Truth is not “relative.” No single proposition can be “true for me but not true for you.”
3. (CT) does not legitimize any kind of dogmatism or intolerant attitude toward people who disagree with you. Some people dismiss without consideration anyone who disagrees with them. That is a nasty and unreasonable way to treat others. However, if we disagree about something, then, trivially, I think that I am right and that you are wrong.

4. (CT) does not imply that things cannot change.
5. There are sentences whose meaning are vague, such as “Yogurt tastes good.” The truthfulness of these sentences depend on how we interpret them.
6. (CT) does not imply that we cannot know what is “really” true.

### 3. Justification

Justification is necessary for knowledge. There are lots of times that a person has a true belief but does not have knowledge. Consider the following example:

**Correct Predictions** New York is playing Denver in an upcoming Superbowl. The experts are divided about who will win, and the teams are rated as even. You have a hunch that Denver will win. When the game is finally played, your hunch turns out to have been correct. So you believed that Denver would win, and your belief was true.

The idea behind this counterexample is “lucky guess”. Here is another type of counterexample:

**The Pessimistic Picnic Planner** You have a picnic scheduled for Saturday and you hear a weather forecast that says at the chances that it will rain on Saturday are slightly more than 50%. You are a pessimist, and on the basis of this report you believe confidently that it will rain. And then it does rain. So you had a true belief that it would rain.

In this example, the basis of our belief is not good enough for knowledge. So (TAK) requires a strong sense of justification.

Also, you can be justified in believing something without actually believing it. Condition (3) of the TAK does not imply (1). Consider the following example:

**Mr. Insecure’s Exam** Mr. Insecure has just taken an exam. The teacher quickly looked over his answers and said that they look good and that the grades will be available the next day. Mr. Insecure has studied hard, taken and done well on the practice exams, found the questions on the actual exam similar to the ones he had studied, and so on. He has excellent reasons to think that he passed the exam. But Mr. Insecure is insecure. He never believes that he has done well and does not believe that he has done well on this exam.

Even though Mr. Insecure does not believe that he has passed the exam, he is justified in believing that he passed the exam. To be justified in believing a proposition is, roughly, to have what is required to be highly reasonable in believing it, whether one actually believes it or not.

Two additional points about justification:

1. What is justified for one person may not be justified for another. You have many justified beliefs about your private life. Your friends and acquaintances may have little or no justification for beliefs about those matters.
2. It is important not to confuse being justified in believing something from being able to show that one is justified in believing that proposition. In many cases we can explain why a belief is justified; we can formulate our reasons. However, there are exceptions to this. For example, a child might have many justified beliefs but be unable to articulate a justification for them.

## 8.4 Gettier's Objection to the *TAK*

The first philosopher to argue explicitly against the *TAK* in the manner to be discussed here was Edmund Gettier. His brief essay, "Is Justified True Belief Knowledge?," may be the most widely discussed and often cited epistemology paper in many years.

**The Ten Coins Case** Smith is justified in believing:

1. Jones is the man who will get the job and Jones has ten coins in his pocket.

The reason Smith is justified in believing (1) is that he has just seen Jones empty his pockets, carefully count his coins, and then return them to his pocket. Smith also knows that Jones is extremely well qualified for the job and he has heard the boss tell the secretary that Jones has been selected. On the basis of (1), Smith correctly deduces and believes another proposition:

2. The man who will get the job has ten coins in his pocket.

Smith is justified in believing (2) on the basis of this inference. In spite of Smith's evidence, (1) is not true after all. The boss misspoke when he said that Jones was going to get the job. In fact, the job is going to the company vice president's nephew, Robinson. Coincidentally, Robinson also happens to have ten coins in his pocket.

In this example (2) is true even though (1) is false. Smith was justified in believing (1), correctly deduced (2) from (1), and believed it as a result. So, Smith was also justified in believing (2). And (2) is true. So Smith's belief in (2) is justified and true. But clearly Smith does not know (2). It is just a coincidence that he is right about (2).

**The Nogot/Havit Case** Smith knows that Nogot, who works in his office, is driving a Ford, has Ford ownership papers, is generally honest, etc. On this basis he believes:

3. Nogot, who works in Smith's office, owns a Ford.

Smith hears on the radio that a local Ford dealership is having a contest. Anyone who works in the same office as a Ford owner is eligible to enter a lottery, the winner receiving a Ford. Smith decides to apply, thinking he eligible. After all, he thinks that (3) is true, so he concludes that:

4. There is someone who works in (my) Smith's office who owns a Ford.  
(There is at least one Ford owner in Smith's office.)

It turns out that Nogot is a Ford faker and (3) is false. However, (4) is true because some other person unknown to Smith, Havit, works in his office and owns a Ford.

So Smith has a justified true belief in (4), but he does not know (4). It is just a lucky coincidence, resulting from Havit's having it, that makes him right about (4).

**The Sheep in the Field** Having won a Ford in a contest, Smith goes for a drive in the country. He looks off into a nearby field and sees what looks exactly like a sheep. So he justifiably believes:

5. That animal in the field is a sheep.

Smith's son is in the back seat reading a book and not looking at the scenery. The son asks if there are any sheep in the field they are passing. Smith says "Yes," adding:

There is a sheep in the field.

Smith is justified by what he sees in thinking that (5) is true, (6) follows from (5), so he is justified in believing (6) as well. As it turns out, (5) is false. What Smith sees is a sheep dog (or a sheep statue, or some other perfect sheep look-alike). But (6), as it happens, is true anyway. Out in the field, but out of view, there is a sheep.

So, Smith has a justified belief in (6), and it is true. But he does not know it. It is only by luck that he is right about (6).

The above three examples rely on the following two principles:

**The Justified Falsehood Principle (JF)** It is possible for a person to be justified in believing a false proposition.

**The Justified Deduction Principle (JD)** If S is justified in believing p, and p entails q, and S deduces q from p and accepts q as a result of this deduction, then S is justified in believing q.

Can we save the *TAK* by rejecting either of these two principles? It would be very difficult if we admit *The Same Evidence Principle*, which is very plausible:

**SE.** If in two possible examples there is no difference at all in the evidence a person has concerning some proposition, then either the person is justified in believing the proposition in both cases or the person is not justified in believing the proposition in both cases.

## 8.5 Modifying the *TAK*

How do we modify the *TAK* to respond to Gettier's objection? A plausible idea is that you cannot have knowledge if your belief depends on a false proposition. Let's consider two possible proposals.

### 1. The No False Grounds Theory

One way in which the justification of a belief might depend upon a falsehood is if there is a false proposition among the grounds or reasons for the belief.

Michael Clark suggests the following No False Grounds account of knowledge:

**NFG.** S knows p =<sub>df</sub>

1. S believes p,
2. p is true,
3. S is justified in believing p.
4. All of S's grounds for believing p are true.



This proposal works only if there are no cases of knowledge in which there are falsehoods among the person's grounds. However, it is clear that there can be knowledge even when some of one's grounds are false. Consider the following example:

**The Extra Reasons Case** Smith has two independent sets of reasons for thinking that someone in his office owns a Ford. One set has to do with Nogot. Nogot says he owns a Ford, and so on. As usual, Nogot is merely pretending. But Smith also has equally strong reasons having to do with Havit. And Havit is not pretending. Havit does own a Ford, and Smith knows that he owns a Ford.

In this example. Smith does know that someone in his office owns a Ford. This is because his reasons having to do with Havit are good enough to give him knowledge. Yet one of his reasons, the one having to do with Nogot, is false. This shows that you can still have knowledge even if there is some falsehood somewhere in the picture. This objection is decisive. It shows that Clark's condition is too strong.

## 2. The No Defeaters Theory

There is another way philosophers have tried to explain what it is for the justification of a belief to depend upon a false proposition. A notable feature of the Gettier cases may be that there is a true proposition such that if the believer knew about it, then he would not believe (or would not be justified in believing) the proposition in question. In effect, then, the believer's justification depends upon the denial of this truth. This truth is called a defeater. The no defeaters theory goes like this:

**ND.** S knows  $p =_{df}$

1. S believes  $p$ ,
2.  $p$  is true,
3. S is justified in believing  $p$ .
4. There is no true proposition  $t$  such that, if S were justified in believing  $t$ , then S would not be justified in believing  $p$ . (No truth defeats S's justification for  $p$ .)

Unfortunately, there are problems for the no defeaters theory.

**The Grabit Case** Black sees her student Tom Grabit stick a tape in his coat pocket and sneak out of the library. She knows that Tom took the tape. Now, imagine that Tom's crime is reported to Tom's mother in her room at the psychiatric hospital. And she replies that Tom didn't do it, that it was his twin brother Tim. And imagine further that he has no twin, that this is just another one of her delusions. Black is ignorant of all this.

Consider this truth:

Tom's mother said that Tom's twin Tim took the tape.

Notice that this sentence itself is true, even though what Tom's mother said is false. If Black were justified in believing just this truth-but not the rest of the story about her-that would defeat Black's justification. It is a misleading defeater.

The idea of this example is that knowing some truth might lead to false beliefs. If we can know ordinary things, then there can be other truths such that if we learned them, they would undermine our justification for the thing we know. But some of these defeaters are misleading. That is, we actually know things, but we would not know them if we learned about these defeaters. We are lucky not to know about the defeaters.

The key thing in all the Gettier-style cases is that, in some sense, the central belief "essentially depends upon a falsehood."

The idea of essential dependence is admittedly not completely clear. However, it gives us a useful working definition of knowledge with which we can proceed.

**EDF.** S knows  $p =_{df}$

1. S believes  $p$ ,
2.  $p$  is true,
3. S is justified in believing  $p$ .
4. S's justification for  $p$  does not essentially depend on any falsehood.

If this modified definition of knowledge is correct, then justification is a crucial necessary condition for knowledge. Furthermore, justification is an interesting and puzzling concept in its own right. We will consider details about justification next time.

## References

- [1] Richard Feldman, *Epistemology*, Pearson Education, Inc., 2003.