Introduction to Philosophy
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Epistemology: The Analysis of Knowledge

Epistemology

Epistemology is an area of philosophy which is concerned with knowledge and other cognate notions, such as (epistemic) justification, evidence, (epistemic) reasons, understanding, wisdom, and so on.

Propositional Knowledge

Relation between *subjects* and *propositions*; expressed using `S knows that p'

Propositions are meanings of complete declarative sentences. Propositions can be true or false. True propositions are (or refer to) facts.

Analyses and Counterexamples

Analysis of X = attempt to define precisely what X *is*, e.g., A.

E.g.: M: A *mother* = a woman who has given birth

Counterexample: case where something is X but not A, or vice versa.
E.g.: Adoptive mothers are apparent counterexamples to M.

There are always three ways to respond to a counterexample:
Add something to X. (E.g., add `biological' to the left side of M)
Add something to A. (E.g., add `or adopted a child' to the right side of M)
Reject the counterexample. (Deny that adoptive mothers are really mothers)

The JTB Analysis of Knowledge

The oldest analysis of knowledge, going all the way back to Plato:
JTB: S knows that p = S has a justified true belief that p

(1) p is true
p is true = (roughly) it is a fact that p, i.e., p "corresponds to" the facts

Evidence that what is known must be true: it's bizarre to say that S knows that p, yet p is false.
If p is false, S may *think* she knows that p, but she doesn't.

(2) S believes that p
S believes that p = (roughly) S accepts that p is true/S is confident that p/S treats p as true

Evidence that what is known must be believed: it's bizarre to say that S knows that p, yet S doesn't believe that p.

(3) S is justified in believing that p
S is justified in believing that p = (roughly) S believes that p for good reason(s)

What is a justified belief?
First pass: belief based on *good reasons*
Well, okay, what are good reasons?
First pass: reasons that make the belief *likely to be true*

Some seemingly good reasons for believing p (usually):
You saw that p.
A reliable source told you that p.
You have a proof that p.
You know that there's a 99.999% chance that p.

Some seemingly not so good reasons for believing p (usually):
You want p to be true.
You had a dream where you saw that p.
The magic 8-ball said that p.
You know that there's a 50% chance that p.

Example 2.3: 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.

Example 2.4: 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.

<u>The Gettier Cases</u>

Gettier cases are counterexamples to JTB: subjects have JTB that p but don't know that p

The Ten Coins Case:
Smith's boss told him that Jones would get the job, and he "counted the coins in Jones's pocket ten minutes ago." So he has a justified belief in

(1) Jones will get the job and Jones has ten coins in his pocket.

From (1), Smith deduces and comes to believe

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

So Smith has a justified belief in (2). And (2) is true. So Smith has a justified true belief in (2). But - unbeknownst so Smith - *he* has ten coins in his pocket, and in fact it's not Jones who is going to get the job, but Smith himself. So he doesn't know (2).

The Ford Case:

Smith knows that Jones, who works in his office, is driving a Ford, has Ford ownership papers, is generally honest, etc. On this basis he believes:

(3) Jones owns a Ford.

Smith also has a friend, Brown. Where is Brown to be found at the moment? Smith does not know. Nonetheless, on the basis of his accepting that Jones owns a Ford, he infers — and accepts:

(4) Jones owns a Ford or Brown is in Barcelona.

But imagine now that two further conditions hold. First, Jones does not own a Ford, but is at present driving a rented car. And second, by the sheerest coincidence, and entirely unknown to Smith, Barcelona happens really to be the place where Brown is.

The Sheep in the Field Case:
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:

(6) 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.

<u>The Gettier Formula</u>

Step One
Take a belief that is formed in such a way that it would usually result in a false belief, but which is justified nonetheless.

Step Two
Make the belief true, albeit true for reasons that have nothing to do with the agent's justification.

<u>Strategies for JTB theorists:</u>

First strategy for JTB theorist: deny that Gettier case is a counterexample to JTB theory.

Second strategy: modify the JTB analysis.

<u>Deny that Gettier case is a counterexample to JTB theory</u>

Either: Deny that Gettier subjects have justified beliefs that p.
Or: Say that Gettier subjects know that p.

<u>Deny that Smith has a JTB that (2):</u>

Gettier's case depends on two assumptions:

1. *Justified Falsehood* (JF). It's possible to have a justified belief in p even though p is false.

2. *Justified Deduction* (JD). If you have a justified belief in p and deduce q from p, then you have a justified belief in q.

If you deny JF or JD, then Smith may not have a JTB that (2):

If JF is false, then Smith's belief in (1) is unjustified, and so (probably) is his belief in (2), since it's based on (1).

Problems with denying JF: It requires rejecting *Same Evidence* (SE).

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.

The Typical Case vs The Unusual Case (Feldman 29)

If JD is false, then perhaps Smith's belief in (2) is not justified, since deduction from justified belief doesn't always get you justified belief.

Problems with denying JD: It requires rejecting (SE).

But even if JD is false, surely sometimes deduction from justified belief gets you a justified belief. Why not here? What *should* Smith's attitude to (2) be?

<u>Affirm that Smith knows (2):</u>

Seems that it's just by *luck* that Smith's belief is true.

A common idea: If you know that p, then it's not just luck that your belief that p is true.

<u>Modify the JTB analysis</u>

We'll look at several examples of this strategy:

<u>No False Grounds Theory (NFG)</u>

JTB+NFG theory adds a fourth condition: that <u>all of S's grounds for believing that p are true</u>.
Gettier's original cases are not counterexamples to JTB+NFG

But are there Gettier cases where NFG is satisfied? Maybe:

The Stopped Clock Case:
Alice sees a clock that reads two o'clock and believes that the time is two o'clock. It is, in fact, two o'clock. There's a problem, however: unknown to Alice, the clock she's

looking at stopped twelve hours ago. Alice thus has an accidentally true, justified belief.

Response from JTB+NFG proponent: grounds aren't just those beliefs you consciously use in reasoning, but also the background beliefs you presuppose in your reasoning. So in those cases there *is* a false ground:

The Stopped Clock Case: *this clock is not stopped*

Response from JTB+NFG opponent: this move makes the theory too strong. What if you see twenty clocks, all of which say that it's 5:00, but only one of them is stopped? There you know, but your belief presupposes that *none of the clocks are stopped*, and that's false. Right?

The Causal Theory of Knowledge

Causal theory (proposed by Alvin Goldman):

(C) S knows that p = S has a belief that p, which was causally connected to the fact that p

Compare with JTB. Both say that knowledge is TB + something else. Difference concerns what they say the something else is.

JTB: justification / good reasons / believing as you ought to ← *evaluative condition*
C: causal connection ← *purely descriptive condition*

`Thermometer' analogy (from David Armstrong). How does a thermometer 'know' what the temperature is? It is constructed in such a way that when the temperature is *n*, this causes the thermometer to read `*n*'. C says that human knowledge is basically like this.

C can explain how we know through perception, introspection, testimony, abductive inference (though in the latter two cases it's a little bit complicated)

C can explain why lucky guesses & Gettier cases aren't knowledge. But, some problem cases:

1. Weird causal connections, e.g.,

The Blow To The Head: Gerald has fallen down the steps and hit his head. The blow to his head scrambles his brain in such a way that he forms a variety of wild beliefs. Among other things, he believes that eating lettuce causes obesity, that the Chicago Cubs will win the World Series, and that he has just fallen down the steps. In fact, he has no recollection of the sensation of having fallen. This belief, like each of the other two just mentioned, is simply a direct result of the blow to the head.

Goldman's solution:

S knows that p = S has a belief that p caused **in an appropriate way** by the fact that p.

Uh-oh… what's "appropriate"?

2. Knowledge of math and logic. How does the fact that 2+2=4 cause anything?

3. Misleading environments, e.g.,

Fake Barn County:
An eccentric farmer in Minnesota owns all of the land in Fake Barn County. Wanting to appear much richer than he is, this farmer has erected fake barns all throughout the county. From the road, these fake barns look exactly like real barns, when, in reality, they are just two dimensional barn façades. While nearly every barn-looking structure in the county is a fake, there are a few real barns interspersed among the myriad fakes. Henry, who is driving through Fake Barn County, has no idea that there are any fake barns in the county. Looking out the window of his car, Henry sees what looks to be a barn on the hill just up the road and comes to believe that there is a barn on the hill. Purely by chance, Henry happens to be looking at one of the few real barns in the county.

Such considerations eventually led Goldman to abandon the causal theory altogether.

Process Reliabilism

Knowledge is true belief that is the product of a reliable process, where a reliable process is a process that tends to result in true beliefs.

A Problematic Case:

TEMP: Temp's job is to keep a record of the temperature in the room that he is in. He does this by consulting a thermometer on the wall. As it happens, this way of forming his beliefs about the temperature in the room will always result in a true belief. The reason for this, however, is not because the thermometer is working properly, since in fact it isn't – it is fluctuating randomly within a given range. Crucially, however, there is someone hidden in the room next to the thermostat who, unbeknownst to Temp, makes sure that every time Temp consults the thermometer the temperature in the room is adjusted so that it corresponds to the reading on the thermometer.

Temp does not know the temperature despite that his belief is the product of a reliable process.

Knowledge-First Epistemology

The Negative Thesis: Knowledge is unanalysable.

The Positive Thesis: Knowledge should be theoretically explanatory in that we should use knowledge to explain other central notions in epistemology such as belief, evidence, justification, and rationality.

But there are already some non-trivial necessary conditions for knowledge, such as truth and belief. Why then can't knowledge be analyzed as true belief plus whatever must be added to true belief to get knowledge?

An Analogy: Although being colored is a non-trivial necessary condition for being red, that gives us no reason to expect being red to have an analysis as being colored plus whatever must be added to being colored to get being red, under a different specification of the latter that does not mention red.