Philosophy 3340 - Epistemology

Topic 2 - The Problem of Analyzing the Concept of Knowledge

Handout: Analyses of the Concept of Knowledge: An Overview

1. The Justified True Belief Analysis

S knows that p = def.

(1) It is true that p,
(2) *S* believes that p, and
(3) *S* is justified in believing that p.

Objections/Possible Problems?

1. The Gettier counterexamples.

2. The apple and the laser photograph case.

3. The Henry and the barn case.

4. This analysis doesn't entail what intuitively appears to be the right relation between (Kp and Kq) and $K(p \;\&\; q)$.

Explanation of the Third Point

(1) A belief can surely be justified even if the epistemic probability of its being true is less than 1. Suppose, then, that a belief is justified if and only if its epistemic probability is greater than some threshold k. (A natural idea – and in my view the correct one – is that $k = 0.5$, but all that matters for the present argument is that there is some threshold that is greater than 0 and less than 1.)

(2) Suppose, then, that there are two propositions p and q, such that the epistemic probability of p for person *S* is greater than k, and similarly for q. Then *S* is justified in believing that p and also justified in believing that q. But the epistemic probability of the conjunction p and q for *S* could perfectly well be less than k, in which case *S* would not be justified in believing that p and q. In short, given the following notation,

"Prob(p) = k" means that the epistemic probability that p has for person *S* is equal to k

"JBp" means that *S* is justified in believing that p

the following entailments do **not** hold if k is any number greater than 0 and less than 1:

$$[\mathbf{Prob}(p) > k \textbf{ and } \mathbf{Prob}(p) > k] \Rightarrow \mathbf{Prob}(p \;\&\; q) > k$$

$$\mathbf{JB}p \;\&\; \mathbf{JB}q \Rightarrow \mathbf{JB}(p \;\&\; q)$$

(3) As a consequence, one can, given the justified true belief analysis of knowledge, know that p and know that q, without its being the case that if one infers the conjunction of p and q from one's belief that p and one's belief that q, one is justified in believing that p and q, and so without its being the case that one knows that p and q. One can, in short, know that p and know that q without that entailing that one thereby **potentially knows** that p and q.

2. A. J. Ayer's Strengthening Strategy: Knowledge and Certainty

S knows that *p* = def.

(1) It is true that *p*,
(2) *S* is sure that *p*, and
(3) *S* has a right to be sure that *p*.

Objections/Possible Problems?

1. This analysis entails that one has virtually no knowledge.

Plus Features?

1. This analysis entails what intuitively appears to be the right relation between (*Kp* and *Kq*) and *K*(*p* & *q*).

3. Michael Clark's Supplementation Strategy: True Belief Not Based upon False Belief

S knows that *p* = def.

(1) It is true that *p*,
(2) *S* believes that *p*,
(3) *S* is justified in believing that *p*, and
(4) *S*'s justification for believing that *p* does not go through any false beliefs.

Objections/Possible Problems?

1. Richard Feldman's counterexample, described below.

2. This analysis doesn't entail what intuitively appears to be the right relation between (*Kp* and *Kq*) and *K*(*p* & *q*).

3. Does it handle the apple/laser photograph case **if direct realism is true**?

4. The case of evidence that is partly false, but where the false part can be jettisoned. (However, Clark's account can be easily modified to avoid this objection.)

Plus Features?

1. This analysis blocks the Gettier counterexamples.

Richard Feldman's Counterexample

(1) Mr. Nogot gave Smith very strong evidence for the proposition that he, Mr. Nogot, is in the office, and owns a Ford.

(2) Smith believes, and justifiably, the following proposition:

> (a) Mr. Nogot gave him, Smith, very strong evidence for the proposition that he, Mr. Nogot, is in the office, and owns a Ford.

(3) Smith concludes, and justifiably:

> (b) Someone gave me, Smith, excellent evidence for the proposition that he is in the office and owns a Ford.

(4) Smith also concludes, and justifiably:

(c) Someone gave me, Smith, excellent evidence for the proposition that there is someone in the office who owns a Ford.

(5) Smith then forms the belief:

(d) Someone in the office owns a Ford.

The final belief is true, and justified, and Smith hasn't gotten to it via any false beliefs, since (a), (b), and (c) are all true. (Notice that (a), (b), and (c) merely say that Smith was provided with evidence for certain propositions, and they are all compatible with its being the case that the evidence in question was evidence for some propositions that were themselves false, as is in fact the case with (a) and (b).

4. A "Chisholm-Inspired" Analysis of the Concept of Knowledge

The conceptual framework that Chisholm uses involves some concepts – and, in particular, the concept of a proposition's being **evident** – that we have not considered. But the following is an account that is suggested by Chisholm's discussion, both in *Theory of Knowledge* (Second edition, 1977, page 23, footnote 22), and *Foundations of Knowing* (1982, pages 45-9): *S* knows that *p* = def.

(1) It is true that *p*,
(2) *S* believes that *p*,
(3) *S* is justified in believing that *p*, and
(4) *S* has a justification, *j*, for believing that *p* such that *j* does not justify any false belief, *q*.

Objections/Possible Problems?

1. Lehrer and Paxson suggest that "it seems reasonable to suppose that every statement, whatever epistemic virtues it might have, completely justifies at least one false statement" (page 470). If this is right, then Chisholm's analysis entails that we have no knowledge. But are Lehrer and Paxson right?

The claim that it is reasonable to suppose that every statement "**completely** justifies" (emphasis added) at least one false statement seems very implausible.

But one might shift to the weaker claim that it seems reasonable to suppose that every statement, whatever epistemic virtues it might have, **justifies** at least one false statement, which, if true, shows that Chisholm's analysis is unsatisfactory. But even this weaker claim – which we'll return to later – is far from unproblematic.

2. This analysis doesn't entail what intuitively appears to be the right relation between (Kp and Kq) and $K(p$ & $q)$.

3. Does it handle the apple/laser photograph case **if direct realism is true**? The answer is that it handles the apple/holographic image case **even if direct realism is true,** since one can argue that whatever it is that justifies one in believing that there is an apple on the table also justifies one in accepting the false proposition that one's visual experiences are **caused** (in the normal way) by an apple – or, alternatively, the false belief that one is seeing an apple. (It also handles a variant on this case that we shall consider later.)

Plus Features?

1. This analysis blocks the Gettier counterexamples.

2. This analysis also handles Richard Feldman's counterexample.

5. Keith Lehrer and Thomas Paxson's Account: Nonbasic Knowledge as Undefeated, Justified True Belief

1. Rather than offering an account of the concept of knowledge in general, Lehrer and Paxson offer separate accounts of **basic knowledge** and **nonbasic (or inferred) knowledge**.

2. The definition of **basic knowledge** that Lehrer and Paxson offer is as follows:

"We propose the following analysis of basic knowledge: *S* has basic knowledge that *h* if and only if (i) *h* is true, (ii) *S* believes that *h*, (iii) *S* is completely justified in believing that *H*, and (iv) the satisfaction of condition (iii) does not depend on any evidence *p* justifying *S* in believing that *h*." (464)

3. The definition of **nonbasic knowledge** that Lehrer and Paxson offer is as follows:

"Thus we propose the following analysis of nonbasic knowledge: *S* has nonbasic knowledge that *h* if and only if (i) *h* is true, (ii) *S* believes that *h*, and (iii) there is some statement *p* that completely justifies *S* in believing *h* and no other statement defeats this justification." (465-6)

4. A crucial notion in the account of nonbasic knowledge is the idea of **defeasibility,** which they define as follows:

"We propose the following definition of defeasibility: if *p* completely justifies *S* in believing that *h*, then this justification is defeated by *q* if and only if (i) *q* is true, (ii) the conjunction of *p* and *q* does not completely justify *S* in believing that *h*, (iii) *S* is completely justified in believing *q* to be false, and (iv) if *c* is logical consequence of *q* such that the conjunction of *c* and *p* does not completely justify *S* in believing that *h*, then *S* is completely justified in believing that *c* is false." (468)

Objections/Possible Problems?

1. If "complete justification" is interpreted strongly, the account entails that we have very little knowledge. If it is not interpreted strongly, then the account doesn't entail what intuitively appears to be the right relation between (Kp and Kq) and $K(p \& q)$

2. If knowledge is compatible with **ignorance** of whether a potential defeater exists, why is it incompatible with a false belief that the potential defeater does **not** exist? For if it is true in the former case that one's justification does not **depend** on being completely justified in believing that the defeater in question does not exist, why **may** it not also be true in the latter?

3. The analysis that Lehrer and Paxson offer of **basic** knowledge does not appear to generate the correct result in apple/laser photograph case **if direct realism is true**. (However, this objection could be avoided by adding the "no defeater" requirement to the definition of basic knowledge.)

Plus Features?

1. This analysis blocks the Gettier counterexamples.

2. It handles the apple/laser photograph case if indirect realism is true, since one does have a false, justified belief about the presence of a causal connection.

3. It handles Richard Feldman's counterexample, and does so while being less restrictive than Chisholm's analysis

6. Alvin Goldman's Causal Analysis of the Concept of Knowledge

The account that Alvin Goldman offers is as follows:

"*S knows that p* if and only if
the fact that p is causally connected in an 'appropriate' way with S's believing p.

'Appropriate' knowledge-producing causal processes include the following:

(1) perception

(2) memory

(3) a causal chain, exemplifying either Pattern 1 or Pattern 2, which is correctly reconstructed by inferences, each of which is warranted (background propositions help warrant an inference only if they are true)

(4) combinations of (1), (2), and (3)." (459)

Objections/Possible Problems?

1. Should concepts such as those of **perception** and **memory** be part of an analysis of the concept of knowledge? Shouldn't it be a **non-trivial** result that perception and memory can generate knowledge?

2. There are two aspects of this definition that, because of vagueness, tend to shield this account from criticism. First, there is the idea of "appropriate" knowledge-producing causal processes. To see why this is problematic, consider a variant on the apple/laser photograph case, in which there is a holographic image only if the device is triggered by the presence of a real apple. Now there is a causal process that runs from the apple through the holographic image to the perceiver, but one would not count this as a case of knowing that an apple is present. If Goldman rules this out by holding that the causal process is not an appropriate one, then since he has offered no definition of "appropriate causal process", the term appears to allow him to accept or reject causal processes as needed to avoid objections.

3. The other place where there is vagueness in the account is in connection with the "correctly reconstructed by inferences" requirement. For consider the following statement: "Though he need not reconstruct *every* detail of the causal chain, he must reconstruct all of the important links" (454). Here the problem is that it is vague what counts as an important link. Consider, for example, perception. What are the important links here? Does the causal process that runs from experiences to beliefs about external objects contain "important links"? If so, and if they have to be reconstructed by **inferences**, then a direct realist account of perception will be ruled out.

What seems to me important is simply that whatever inferences are present be ones that are justified. I cannot see how one can make any **independent** judgments about the importance of causal links, and then check to see whether all of the important causal links have been reconstructed by inferences.

4. **Explicit** references to causal connections appear unnecessary, since, at least in the case of **nonbasic** or **inferential** knowledge, inferences of a non-deductive sort will only

be justified if it is reasonable to believe that the relevant states of affairs are connected causally – or, at least, either causally or nomologically. In short, it looks as if something like the following thesis is true:

One can have inferential knowledge of some entity, S, only if the knowledge is based upon the knowledge that S is connected, either causally or via laws of nature, with some entity T of which one can have knowledge, either inferential or noninferential.

5. One of the fundamental points about Goldman's analysis is that, in jettisoning the requirement that a necessary condition for a belief to be a case of knowledge is that the belief be justified, Goldman is opting for a thoroughgoing externalist account of knowledge, and it appears to be true, on Goldman's account, that one can know something without being justified in believing it. For suppose that John acquires, without knowing it, the power of telepathy, and he finds himself having the thought that Bruce is in some particular mental state. Would John be justified in believing the proposition in question? It would seem not, for someone else – Mary – might find herself having precisely the same thought about Bruce, purely by accident. Surely Mary would not be justified in believing the proposition in question. But if she is not, then how could John be justified, given that he and Mary could be in precisely the same internal state?

Conclusion: Given Goldman's proposed analysis of the concept of k knowledge, one could know that *p* without being justified in believing that *p*.

7. Robert Nozick's "Knowledge as Tracking" Strategy

Nozick suggests that the concept of knowledge can be analyzed as follows:

S knows that *p* = def.

(1) It is true that *p*,
(2) *S* believes that *p*,
(3) If *p* were not true, then *S* would not believe that *p*, and
(4) If *p* were true, then *S* would believe that *p*.

Objections/Possible Problems?

1. This is an interesting account of the concept of knowledge, but it has at least one consequence that seems rather counterintuitive - namely, it entails the falsity of what has been called the "closure condition" for knowledge.

The Closure Condition for Knowledge

The closure condition can be formulated as follows.

Suppose:

(1) Mary knows that *p*;
(2) *p* entails - that is, logically necessitates - *q*;
(3) Mary knows that *p* entails *q*;
(4) Mary comes to believe that *q* because she believes both that *p*, and that *p* entails *q*.

Then:

(5) Mary knows that *q*.

Why does the knowledge-as-tracking account entail that the closure condition for knowledge is false? Consider, first, the question of whether one can know, given the tracking account of knowledge, that one is not a brain in a vat. The problem is that even if one has a justified, true, belief that one is not a brain in a vat, the tracking condition will not be satisfied. For the question is this:

> "If the proposition that one is not a brain in a vat were not true - so that one was in fact a brain in a vat - would one then not believe that one was not a brain in a vat?"

And the answer is that, by hypothesis, all of one's experiences and apparent memories would be just as they are now, and so one would still believe that one was not a brain in a vat. So the belief that one is not a brain in a vat would not track truth in the way required by condition (3). So on the tracking account, one does not know that one is not a brain in a vat.

Secondly, consider whether Mary can know that she is now seeing a table in front of her. Let us assume that she believes that there is a table in front of her, and that that belief is both true and justified. The question is then whether her belief tracks truth. So one has to ask whether the following counterfactual is true:

> "If Mary had not been seeing a table in front of her, then she would not have believed that there was a table in front of her."

And the answer is that this counterfactual is true, for in evaluating it, one considers worlds in which it is false that Mary is seeing a table in front of her, but which differ as little as possible from the actual world. This means that one does not consider worlds in which Mary is a brain in a vat, or a pure spirit being deceived by a naughty angel, and where none of the physical things that Mary takes to exist really exist. One considers, instead, worlds where someone removed the table from the room a bit earlier.

So the situation is as follows:

Mary knows that she is seeing a table in front of her.

Mary does not know that she is not a brain in a vat who is not really seeing a table.

But if Mary is seeing a table, then it follows necessarily that she is not a brain in a vat who is not really seeing a table. The conclusion that she can know that the former is the case while not knowing that the latter is the case - together with appropriate additional assumptions - means that the closure condition is not satisfied by the knowledge-as-tracking account.

2. A second possible objection is that Nozick's account entails that the skeptic is right about some crucial claims. In particular, it follows from Nozick's knowledge-as-tracking account that

(1) One cannot know that one is not a brain in a vat;

(2) One cannot know that one is not dreaming.

Now it is not out of the question that these things are true. But is it plausible that they should be a more or less immediate consequence of one's analysis of the concept of knowledge?

8. My Own Proposed Analysis of the Concept of Knowledge

The analysis advanced by Michael Clark is a very natural response to a number of counterexamples to the original, tripartite analysis, but it is exposed to Richard Feldman's objection. The analysis advanced by Chisholm avoids Feldman's objection, but it may very well be true, as Lehrer and Paxson suggest, *but do not prove*, that for any justified belief, *p*, there is always some false proposition, *q*, that is justified by *p*.

The proof of this claim does not appear trivial, and it may be that it is not true. The way in which I would attempt to prove it, however, would involve a generalization of the following argument:

Suppose that one thing with property *P* has been observed – call it *A* – and has been found to have property *Q*, where *Q*, rather than belonging to a family of two or more positive properties – such as the family of color properties – is a property that something can only have or not have.

According to Laplace's rule of succession, the probability that any other given thing that has property *P* also has property *Q*, given the evidence that there are *n* things with property *P*, all of which have property *Q*, is equal to $\frac{n+1}{n+2}$. So given the evidence that *A* has property *P* and also property *Q*, the probability that that any other given thing that has property *P* also has property *Q* is equal to $\frac{1+1}{1+2}$, or $\frac{2}{3}$.

It follows from this that, for any other object *B*, the probability that *B* **either lacks property *P* or has property *Q*** must be equal to or greater than $\frac{2}{3}$. (A proof of this entailment is given in the appendix.) Consequently, if there is, anywhere, at any time, some object *B* that has property *P* but not property *Q*, then the proposition that ***B* either lacks property *P* or has property *Q*** will be a false proposition that is confirmed by the proposition that *A* has property *P* and also property *Q*.

Generalizing this argument does not appear to be entirely trivial. But even if the generalization is false, I think that the type of case I've just described can serve as the basis of a decisive objection to Chisholm's analysis.

My idea, then, is to formulate an analysis that, like Chisholm's analysis, is more demanding than Clark's analysis, but less demanding than Chisholm's. Here is my proposal:

***S* knows that *p* = def.**

(1) It is true that *p*,
(2) *S* believes that *p*,
(3) *S* is justified in believing that *p*, and
(4) *S* has a justification, *j*, for believing that *p* such there is no false belief, *q*, such that (a) *j* justifies *q*, and (b) *q* is such that if *S* were to become justified in any way in believing that *q* is false, *S* would no longer be justified in believing that *p* is true.

Notice that in Feldman's case, Smith is justified in believing that Mr. Nogot owns a Ford, that that belief is false, and that if Smith were to become justified in believing that that belief was false, he would no longer be justified in believing that someone in the office owns a Ford. By contrast, in the case that I just described, where one is justified in believing that object *A* has both property *P* and property *Q*, and where that justifies a false proposition that object *B* either lacks property *P* or has property *Q*, one's coming to be justified in believing that the latter proposition is false would not undercut in any way one's justification for believing that object *A* has both property *P* and property *Q*.

Appendix

Introduce the following abbreviations:

'P_n' = 'Object *n* has property P'

'Q_n' = 'Object *n* has property Q'

'E' = '$(P_1 \& Q_1) \& (P_2 \& Q_2) \& \ldots \&(P_n \& Q_n)$'

'Prob(q/p)' = 'The logical probability of *q* given *p*'.

What we want to prove is that

$\mathrm{Prob}(Q_{n+1} \vee \sim P_{n+1}/E) \geq \mathrm{Prob}(Q_{n+1}/ P_{n+1} \,\&\, E)$.

Proof

We can prove this by proving the following general result:

$\mathrm{Prob}(r \vee \sim p/q) \geq \mathrm{Prob}(r/p \,\&\, q)$.

This can be proved as follows. First of all, the following is a theorem of probability theory:

(1) $\mathrm{Prob}(r/p) = \mathrm{Prob}(q/p) \times \mathrm{Prob}(r/q \,\&\, p) + \mathrm{Prob}(\sim q/p) \times \mathrm{Prob}(r/\sim q \,\&\, p)$

Now replace 'r' by '$r \vee \sim p$', so that we have:

(2) $\mathrm{Prob}(r \vee \sim p/q) = \mathrm{Prob}(p/q) \times \mathrm{Prob}(r \vee \sim p/p \,\&\, q) + \mathrm{Prob}(\sim p/q) \times \mathrm{Prob}(r \vee \sim p/\sim p \,\&\, q)$

But

(3) $\mathrm{Prob}(r \vee \sim p/p \,\&\, q) = \mathrm{Prob}(r/p \,\&\, q)$, since the only way that '$r \vee \sim p$' can be true if '$p \,\&\, q$' is true is by 'r' being true

Also

(4) $\mathrm{Prob}(r \vee \sim p/\sim p \,\&\, q) = 1$.

Substituting in (2) using (3) and (4) then gives one:

(5) $\mathrm{Prob}(r \vee \sim p/q) = \mathrm{Prob}(p/q) \times \mathrm{Prob}(r/p \,\&\, q) + \mathrm{Prob}(\sim p/q)$

Since all probabilities are equal to or less than one, we have that

(6) $\mathrm{Prob}(r/p \,\&\, q) \leq 1$.

It then follows from (5) and (6) that

(7) $\mathrm{Prob}(p/q) \times \mathrm{Prob}(r/p \,\&\, q) + \mathrm{Prob}(\sim p/q) \geq$

$\mathrm{Prob}(p/q) \times \mathrm{Prob}(r/p \,\&\, q) + \mathrm{Prob}(\sim p/q) \times \mathrm{Prob}(r/p \,\&\, q)$

It then follows from (5) and (7) that

(8) $\mathrm{Prob}(r \vee \sim p/q) \geq \mathrm{Prob}(p/q) \times \mathrm{Prob}(r/p \,\&\, q) + \mathrm{Prob}(\sim p/q) \times \mathrm{Prob}(r/p \,\&\, q)$

But

(9) Prob(p/q) x Prob(r/p & q)+ Prob($\sim p/q$) x Prob(r/p & q)

= Prob(r/p & q) x[Prob(p/q) x + Prob($\sim p/q$)]

Then, since

(10) Prob(p/q) x + Prob($\sim p/q$)] = 1

it then follows from (9) and (10) that

(11) Prob(p/q) x Prob(r/p & q)+ Prob($\sim p/q$) x Prob(r/p & q)

= Prob(r/p & q)

Finally, it follows from (8) and (11) that

(12) Prob(r v ~ p/q) ≥ Prob(r/p & q)

Given this general result, replace 'r' by 'Q_{n+1} 'q' by 'E, and 'p' by 'P_{n+1}'. This gives us the result that we want:

Prob(Q_{n+1} v ~ P_{n+1}/E) ≥ Prob(Q_{n+1}/ P_{n+1} & E)