

Epistemology

Lecture 5: Knowledge Analysis – Causation and Reliability

Dr. Ioannis Votsis (NCH)

ioannis.votsis@nchlondon.ac.uk

www.votsis.org

Chapter I: Causal Theories

The causal theory

- Recall from last time that truth and belief need to connect in the right way. That is, it is not enough for a belief to be accidentally true.
- S knows that p if and only if
 - (i) S **believes** that p ,
 - (ii) p is **true**,
 - (iii) the fact(s) that p **caused** S to believe that p

Prominent advocates: A. Goldman and P. Kitcher.

- In short, belief in a given proposition must be caused by the very same fact(s) that make(s) the proposition true.

The Smith-Jones case revisited

- Smith believes that the person who gets the job has ten coins in their pocket. So, **condition (i) is satisfied.**

The proposition 'The person who gets the job has ten coins in their pocket' is true. So, **condition (ii) is satisfied.**

The facts that the boss gives Smith the job **and that** Smith has exactly ten coins in his pocket **do not cause Smith's belief.**

So, **condition (iii) is NOT satisfied.**

Thus, Smith doesn't know that the person who gets the job... This verdict accords with Gettier's own intuitions.

The dog in sheep's clothing revisited

- *S* believes that there is a sheep in the prairie. So, **condition (i) is satisfied**. The proposition 'There is a sheep in the prairie' is true. So, **condition (ii) is satisfied**.

- **The fact that** there is a sheep in the prairie **does not cause *S*'s belief that** there is a sheep in the prairie. So, **condition (iii) is NOT satisfied**.

Thus, *S* doesn't know that there is a sheep in the prairie. Again, this accords with Gettier's intuitions, namely that there is no knowledge.



Counterexample: Fake barns

- Henry **believes** that there is a real barn in the area.

The proposition 'There is a real barn in the area' is **true**.

Henry's belief is **caused** by the only real barn in that area.

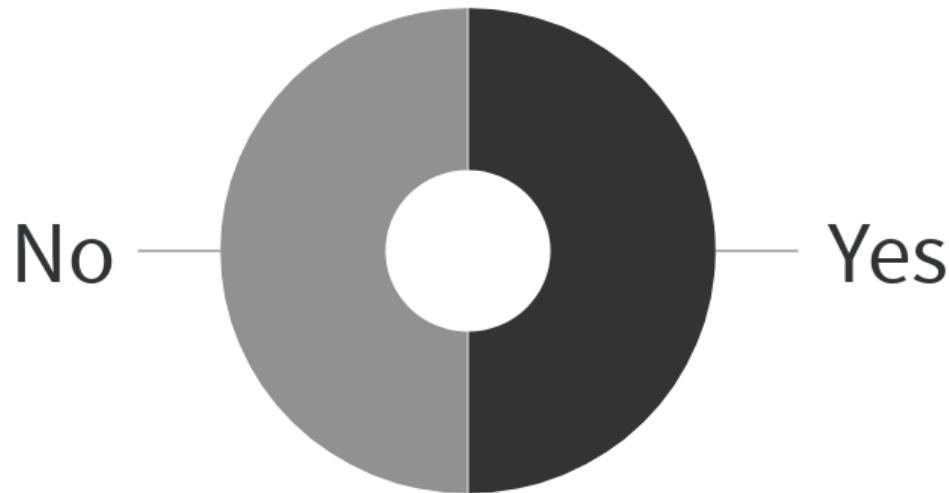


- Does Henry have knowledge? According to the causal theory, **YES!**
- Critics argue **NO!** The presumably relevant intuition here is that Henry was **lucky** to have looked out of his car when he did.

NB: This is also a counterexample to the no false lemmas account!

Does the causal account of knowledge require a justification condition?

Yes **A** No **B**



Chapter II: Reliabilist Theories

Reliability: Of what?

- What kinds of things can be reliable?
- **Processes** or **methods** are reliable or unreliable.

Reliable processes include: perception, memory, reasoning with true beliefs and w/out violating logical rules, certain forms of inductive reasoning and properly functioning scientific detectors.

Unreliable processes include: reading of entrails, wishful thinking, guessing, counter-inductive reasoning and astrology.

NB: The above examples are either belief-forming processes or processes that assist in belief-forming.

Reliability: Meaning what?

- Reliability here means the belief-forming process in question is **truth-conducive**, i.e. we can count on it to produce true beliefs.
- This does not mean that true output is guaranteed. Rather it means that such processes *tend to lead* to the truth.
- Otherwise put, they must produce a high ratio of true to false beliefs.
- Also, typically a process will be deemed reliable for a certain relatively well-circumscribed range of cases.

The (process) reliabilist theory

- *S knows* that *p* if and only if
 - (i) *S believes* that *p*,
 - (ii) *p* is *true*,
 - (iii) *S* employed a *reliable process* to acquire *p*.

Prominent advocates: A. Goldman and F.P. Ramsey.

- In short, belief in a given proposition must be produced by a reliable process. That is how truth and belief must be connected.

NB: There are other reliabilist theories, e.g. virtue reliabilism, but for simplicity we ignore these here.

The Smith-Jones case revisited

- Smith believes that the person who gets the job has ten coins in their pocket. So, **condition (i) is satisfied**. The proposition ‘The person who gets the job...’ is true. So, **condition (ii) is satisfied**.

On the face of it, Smith appears to have **employed reliable processes**, namely perception and reasoning, to conclude that the person who gets the job... So, **condition (iii) appears TO BE satisfied**.

But, note that Smith’s conclusion depends on the job interviewer’s false testimony.

If a case can be made that **the testifier** (and hence part of the process) **is unreliable**, then **condition (iii) appears NOT TO BE satisfied**.

Fake barns revisited

- Henry **believes** that there is a real barn in the area. So, **condition (i) is satisfied**. The proposition 'There is a real barn in this area' is **true**. So, **condition (ii) is satisfied**.

Henry's belief is formed by a reliable **process**, namely his perception. So, **it would seem that condition (iii) IS satisfied**. If so, **Henry has knowledge** according to the reliabilist.

But an alternative account can be given. Henry **glances out of the window of a moving car**. That's an **unreliable** process. **It would seem that condition (iii) IS NOT satisfied**. Henry has **no knowledge**.

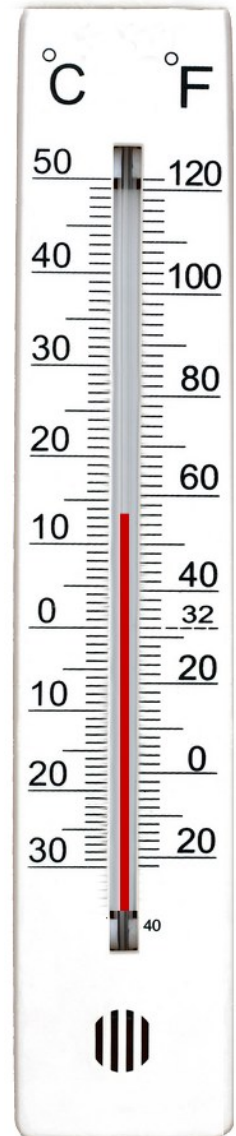
Truetemp counterexample

- Truetemp **believes** that the temperature in this room is 13°C. So, **condition (i) is satisfied**. The proposition ‘The temperature...’ is **true**. So, **condition (ii) is satisfied**.

Truetemp’s belief is formed by a **reliable process**, viz. the thermometer and temperature-belief-generator implanted in his head. So, **it would seem that condition (iii) is satisfied**.

- Thus, **Truetemp appears to know** this proposition. But this violates at least some intuitions, viz. he has **no reasons for his belief or for the reliability of the process**.

NB: It’s not clear that Truetemp needs to have such reasons.



Clairvoyant counterexample

- A clairvoyant **believes** p . So, **condition (i) is satisfied**. The proposition p is **true**. So, **condition (ii) is satisfied**.

That same clairvoyant happens to be true (nearly) all the time. Thus, their belief-forming processes **appear to be reliable**. So, it would seem that **condition (iii) is satisfied**.



- Thus, the clairvoyant **knows** that p . Again, this violates some intuitions. The clairvoyant has **no reasons for the belief/reliability of the process**.

The single-case problem

- How do we choose the right process? Narrower ones are more informative. The trouble is that the narrowest is not informative at all.
- This is known as the **single-case problem**:

“If relevant types are characterized very narrowly then the relevant type for some or all process tokens will have only one instance (namely, that token itself). If that token leads to a true belief, then its relevant type is completely reliable, and according to (RT), the belief it produces is justified. If that token leads to a false belief, then its relevant type is completely unreliable, and, according to (RT), the belief it produces is unjustified. This is plainly unacceptable, and in the extreme case, where every relevant type has only one instance, (RT) has the absurd consequence that all true beliefs are justified and all false beliefs are unjustified” (Feldman 1985, pp. 160-161).



The no-distinction problem

- How do we choose the right level of broadness so as to avoid un-informativeness. Broad types are heterogeneous.
- This is known as the **no-distinction problem**:

“A very broad account of relevant types of belief-forming processes leads to what we may call ‘The No-Distinction Problem.’ This arises when beliefs of obviously different epistemic status are produced by tokens that are of the same (broad) relevant type. For example, if the relevant type for every case of inferring were the type ‘inferring,’ then (RT) would have the unacceptable consequence that the conclusions of all inferences are equally well justified (or unjustified) because they are believed as a result of processes of the same relevant type.” (Feldman 1985, p. 161).

$$GP = SCP + NDP$$

- “The problem for defenders of the reliability theory, then, is to provide an account of relevant types that is broad enough to avoid The Single Case Problem but not so broad as to encounter The No-Distinction Problem. Let us call the problem of finding such an account ‘The Problem of Generality.’” (Feldman 1985, p. 161).



According to reliabilism, does the subject in the dog in sheep's clothing case know that P? Elaborate your answer.

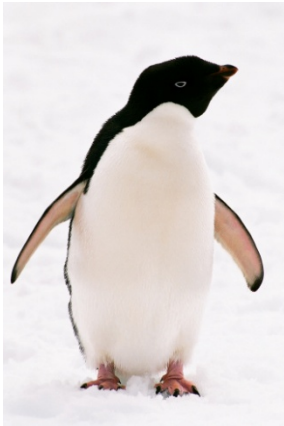
Chapter III (Special Topic): Prototype Theory

Prototype theory

- One influential reaction to conceptual analysis has originated in psychology.
- Rosch & Mervis (1975) emphasised the fact that very few, if any, concepts can be given the necessary and sufficient treatment.
- Instead of definitions, we should be aiming to identify classes on the basis of prototypes.
- So long as a thing has enough features associated with a prototype that thing belongs to the same class as the prototype.

Example

- Since different things satisfy different numbers of features associated with a given **prototype**, **membership** is taken to be **graded**.



Take the class of birds. It contains diverse members some of which are closer to a prototype in terms of features, e.g. having feathers, having a beak and being able to fly, than others.



©Warren Photographic



Similarity judgments

- The idea that things are best classified through family resemblance relations goes back at least to Wittgenstein.
- **Refinement:** Influenced by this idea, Rosch and others put forth the view that classification must be understood *not just* through the *number of shared features* but *also similarity to those features*.
- The more similar the features of a thing are to prototypical features the more likely that thing is going to be a member of the same class.
- **Empirical backing?** Studies have shown that objects deemed to be more prototypical are also classified faster than non-prototypical ones.

Some problems

- One issue is that classification isn't always best pursued via similarity judgments, as prototype theory demands.

Example: “If asked whether a dog that is surgically altered to look like a raccoon is a dog or a raccoon, the answer for most of us, and even for children, is that it remains a dog (see Keil 1989, Gelman 2003 for discussion)” (Margolis and Laurence, SEoP entry on ‘Concepts’).

- Another problem concerns compositionality. Complex concepts are supposed to be compositional on the basis of simpler ones. Prototype theory violates compositionality.

Example: “PET FISH encodes properties such as brightly colored, which have no basis in the prototype structure for either PET or FISH” (ibid.) [original capitalisation].

The End