Phil. 159: Epistemology
Feb. 24, 2022

Lecture 10: Goldman's Causal Theory of Knowledge

I. The Causal Theory Introduced
The basic idea behind the causal theory of knowledge: in order have knowledge, one's belief that things are thus-and-so must be *caused by* things' actually being thus-and-so. The simplest version of such a proposal is:

> S knows that *p* iff S's belief that *p* is caused by the fact that *p*.

Goldman's proposal (see p. 369) is slightly more complicated than that:

> *the causal theory of knowledge*: S knows that *p* iff S's belief that *p* is causally connected in an appropriate way with the fact that *p*.

Note that Goldman only intends this analysis to apply to *our knowledge of empirical propositions*: "I think that the traditional analysis is adequate for knowledge of nonempirical truths" (p. 357).

II. Clarifying Which Causal Connections Count as "Appropriate"
An example of a causal connection that *does not* count as appropriate:

- *a blow to the head*: Malcolm slips on some ice outside and falls, hitting his head. The blow to his head scrambles his brain, causing him to form all sorts of wild beliefs, including a belief *that pink rats are stalking him*, a belief *that 1 + 1 = 3*, and a belief *that he has just slipped on some ice*. In fact, he has no recollection of having slipped. His belief that he has just slipped is caused by his having just slipped, but not in the appropriate way.

Examples of causal connections that *do* count as appropriate:

- *perception*: I see a chair in front of me. As a result, I come to believe *that there is a chair in front of me*. In this case, the fact *that there is a chair in front of me* causes my belief in the appropriate way.

- *memory*: The next day, I remember that I saw a chair in front of me. My belief (on that day) *that there was a chair in front of me* was appropriately caused by my belief (on the previous day) *that there is a chair in front*, which in turn was appropriately caused (via perceptual mechanisms) by the fact *that there was a chair in front of me*.

- *proper reconstruction of a causal chain (Pattern 1)*: "Suppose S perceives that there is solidified lava in various parts of the countryside. On the basis of this belief, plus various 'background' beliefs about the production of lava, S concludes that a nearby mountain erupted many centuries ago" (p. 361). The causal chain from the fact *that the mountain erupted many centuries ago*, to the fact *that there is solidified lava throughout the countryside*, to S's belief *that there is solidified lava throughout the countryside*, and finally to S's belief *that the mountain erupted many centuries ago* counts as appropriate because S has made a series of (warranted) inferences that properly mirror the causal chain leading to S's initial belief.

- *proper reconstruction of a causal chain (Pattern 2)*: Suppose I see a fire in the fireplace and, as a result, come to believe that there is smoke coming out of the chimney. The smoke coming out of the chimney does not cause my belief *that there is smoke coming out of the chimney*. Rather, the fact *that there is a fire in the fireplace* is a common cause of both the fact *that there is smoke coming out of the chimney* and my belief *that there is a fire in the fireplace*. Because I can reconstruct this causal chain when I infer *that there is smoke coming out of the chimney*, the causal connection between my belief *that there is smoke coming out of the chimney* and the fact *that there is smoke coming out of the chimney* counts as appropriate.

To serve as a basis for knowledge, S's reconstruction must "contain no mistakes," and though S "need not reconstruct *every* detail of the causal chain, he must reconstruct all the important links" (p. 363).

III. Some (Putative) Benefits of the Causal Theory

- The causal theory nicely handles the standard Gettier cases.

- The causal theory doesn't require that one be able to *state* one's justification for believing that *p*. This makes it easy to account for one's knowledge of facts whose justification one has forgotten. (Lincoln ex.)

- Because the list of appropriate causal processes is left open, the causal theory leaves room for presently controversial causal processes that we may later deem to be genuinely knowledge-producing.

- The causal theory unseats the traditional assumption "that epistemological questions are questions of logic or justification, not causal or genetic questions" (p. 372).

IV. Some (Potential) Problems for the Causal Theory

- *correct reconstruction without knowledge*: In some cases, it seems that one doesn't know that *p*, even though one has properly reconstructed the causal chain from the fact that *p* to one's belief that *p*. For example, if S infers *that the mountain erupted many centuries ago* from his belief *that there is solidified lava throughout the countryside* for haphazard reasons, S doesn't seem to count as knowing *that the mountain erupted many centuries ago*.

  This is why Goldman requires that the inferences in a reconstruction of a causal connection be *warranted*: "the propositions on which [the subject] bases his belief of *p* must genuinely confirm *p* very highly, whether deductively or inductively" (p. 363).

  This additional requirement avoids the problem, but it also makes the resulting theory not a purely causal theory: now traditional notions of justified inferences are playing a crucial role.

- *knowledge without correct reconstruction*: In some cases, it seems that one can know that *p*, even though one has improperly reconstructed the causal chain from the fact that *p* to one's belief that *p*. For example:

  > *Overdetermined Death (variant of a case due to Brian Skyrms)*: Malcolm watches me take a fatal dose of some poison for which there is no antidote. On this basis, he comes to believe, and appears to know, *that I will die today*. I do in fact die today, but his reconstruction of the causal chain leading up to my death is incorrect: I ended up dying of a heart attack unrelated to the poison.

  One possible response on Goldman's behalf: revise his account so one can count as knowing something if one makes a series of warranted inferences that reconstruct a causal chain *that would have been sufficient to bring about the fact in question*, even if that chain didn't as a matter of fact bring it about. (There is a worry, though, that revising the theory in this way makes it susceptible to Gettier-style counterexamples.)

  Another possible response: deny that Overdetermined Death is a genuine counterexample to Goldman's original theory. (Maybe, on some ways of filling in the case, it's already a Gettier case.)

- *knowledge of existential and universal generalizations*: The causal theory is best designed to handle our knowledge of specific facts about the external world; it has a more difficult time accounting for our knowledge of existential generalizations (such as *that someone in my department is immunocompromised*) and universal generalizations (such as *that all human beings are mortal*). After all, these sorts of facts do not seem to have causes or to cause anything.

  Goldman proposes the following principle broadening of our use of the word 'cause' (p. 368):

  > *Goldman's principle*: If *x* is logically related to *y*, and if *y* is a cause of *z*, then *x* is a cause of *z*.

  Then we can include existential and universal generalizations in causal chains and apply the theory in the standard way to account for our knowledge of such facts.

  > *one problem*: Sometimes Goldman interprets '*x* is logically related to *y*' to mean '*x* entails *y*', and other times he interprets '*x* is logically related to *y*' to mean '*x* is entailed by *y*'.

  > *another problem*: On either interpretation, Goldman's principle has implausible consequences.