

Gettier and Justified True Belief

Matthew Paisner

This report will be divided into three sections. The first will contain a description of the idea of knowledge as justified true belief (JTB) and the Gettier and Gettier-style objections to it. The second will describe a number of attempts to fix the Gettier problem from a variety of angles, and the third will briefly address the broader question of why this subject has proven so seemingly intractable.

1 : JTB and Gettier

The JTB theory of knowledge is an attempt to provide a set necessary and sufficient conditions under which a person can be said to know something. The theory suggests that if a person *p* has a belief *b*, if *b* is in fact true, and if *p* is justified in believing *b*, then *p* knows that *b*. For example, I believe I have two hands, I do in fact have two hands, and I have good justification for believing I have two hands, because I am using them to type. Therefore, under the JTB theory of knowledge, I know I have two hands.

As far as appendages go, this theory seems fairly unproblematic – unless we are skeptics, we would like to say that I do in fact know that I have two hands. However, it turns out that there are a number of cases in which a person could have justified true beliefs and still seem to not have knowledge. Over the past several decades, a very large number of broadly similar examples have been produced. In Gettier's original paper, his first example describes a man named Smith who is competing with Jones for a job. Smith has been told by the President of the company that Jones is going to get the job, and he happens to know that Jones has ten coins in his pocket. Therefore, he reasons that the person who gets the job will have ten coins in his pocket, which seems to be a perfectly justified conclusion. As it happens, the President turns out to have been mistaken, and it is Smith himself who gets the job. Coincidentally he also has ten coins in his pocket, and so his belief that the person who gets the job will have ten coins in his pocket is true.

In this example, Smith has the belief *b* that the person who gets the job will have ten coins in his pocket, he is justified in believing *b* because he has been told by a reliable source that Jones will get it and Jones has ten coins in his pocket, and, lastly, it turns out that *b* is in fact true. Therefore, by the JTB theory, Smith *knew* that the person who got the job would have ten coins in his pocket. However, Gettier and many others argue that it does not seem, intuitively, that this is an actual case of knowledge as we would want it to be defined. It seems that Smith was correct not because he knew (his information was in fact misleading), but merely because he got lucky.

2 : Solutions

Gettier's counterexample, and others like it (hereafter all of these will be referred to as “Gettier examples”, although he himself only posited two), have led to a reevaluation of the JTB theory. Many attempts have been made to modify JTB to account for these examples in such a way that they will no longer be categorized as knowledge, without eliminating actual instances of knowledge. Several of these attempts are outlined below.

Perhaps the most obvious response to Gettier's challenge is to question the “J” part of JTB. It seems fairly clear what we mean by “True” and “Belief,” but “Justified” is another matter. At one end of the spectrum, the Gettier problem can be avoided rather simply by employing a very strict definition of justification: infallibility. In other words, no belief is justified if our rationale for believing it leaves open the possibility of error. In Gettier's example, Smith was not justified in his belief because he assumed that the company President was correct and truthful, and that itself was not necessarily true (in fact, it turned out to be false).

This “Infallibilist” position certainly defeats Gettier's counterexamples. However, it faces the same problem as the skepticist arguments that it springs from: it is not particularly useful or interesting. There simply are not many facts about the world that we can believe infallibly, and so knowledge in this sense would be restricted to basic self-awareness – I think, therefore I am - and perhaps some propositions of mathematics or logic (although even those might be wondered about).

Another proposed modification to the idea of justification is the “No false Lemmas” approach. The idea here is that for a belief to be justified, the process of reasoning used to discover it cannot contain any false lemmas, or sub-conclusions. Gettier's Smith example would then be disallowed as knowledge, since Smith falsely believed that Jones would get the job, and that led to his eventual belief that someone with 10 coins would get it. However, I could still know that I have two hands, because every step in my justification of that belief was correct – I am in fact typing, the hands in front of me are the ones controlled by my brain, etc.

Several counterexamples have been proposed for this formulation as well. In general, they rely on a type of justification in which the reasoner does not actually think through each step of his reasoning. For example, a person might look at a broken clock stuck at 2:13 without knowing it was broken, and conclude reasonably that the time was 2:13. Coincidentally, it might be that it actually was 2:13, and so he had a justified true belief. Because he never thought about the fact that the clock might be broken, he did not actually use any false lemmas in his justification, so his belief that the time is 2:13 should qualify as knowledge, but, again, it does not intuitively seem to do so.

Lycan (2006) proposes a solution to this apparent weakness in the no false lemmas approach. He suggests that we count tacit assumptions or beliefs as part of the justification process, so in the clock example, while the person did not ever think “I believe the clock is not broken,” he did tacitly believe it, and that assumption contributed to his end-belief that the time was 2:13. Therefore, his belief was not knowledge, since it relied on a false tacit assumption. This approach relies on the tacit assumption that a belief can be subconscious and still have an effect on a conscious reasoning process, but that presupposition does not seem particularly problematic since both intuition and psychological research seem to support it.

Of course, there are counterexamples intended to disprove this version of no false lemmas as well. One involves a family, the Togethersmiths (Rozeboom 1967), who all take a drive in the country together every Sunday. An observer who knows this fact sees the family car leaving on a Sunday, and concludes that Mrs. Togethersmith is not at home, since the Togethersmiths are in the car. However, while he is right about Mrs. Togethersmith, it is not true that all of them are in the car, since one of the children is away at a friend's birthday party.

This, then, is supposed to be an instance of actual knowledge in which a false assumption is involved. Harman (1973) responds that a false assumption must be essential to the conclusion for it to invalidate the latter as knowledge. Since the observer did not use the false information about whether or not the missing child was in the car in reaching his conclusion about Mrs. Togethersmith, he can still be said to have known that she was in the car. On the other side of the spectrum, we might wonder whether this is in fact an instance of knowledge at all. Tellingly, it seems as though the degree to which we would call it knowledge is related with the degree to which we think the observer relied on the assumption that *all* the Togethersmiths were in the car. If he had some additional specific knowledge (“Mrs. T. never misses that Sunday drive”), then it seems more plausible, but if his only supporting evidence was general knowledge about the whole family, then it seems more like he was in some sense mistaken in his belief, although it turned out to be true.

There are counterexamples directed at Harman's approach as well, though they seem generally less convincing. There are also several other variations on the attempt to redefine “justified,” including an inverse approach to the one above in which a justified belief is one such that no true fact could, if known, invalidate the justification (such a fact is known as a defeater, and the approach is called indefeasibility). Unfortunately, a comprehensive review of these theories and counterexamples is far beyond the scope of this summary, and interested readers are advised to consult the bibliography.

3 : Larger Thoughts

Why is the Gettier problem such a puzzle? Lycan's paper is largely devoted to this subject, and he presents some interesting thoughts. One is that the project is too ambitious – he cites a paper by Fodor et al. (1980) which argues that no interesting philosophical concept can be strictly defined as a set of necessary and sufficient conditions. Another theory is that the research methods used in these endeavors are flawed. Namely, the results suggested by a certain theory on a given set of instances are tested not against some scientific data about the actual state of knowledge in those instances – no such data exist – but against the intuitions of the researcher. It is not an overstatement to say that this methodology would be considered unscientific in other fields, though in philosophy's defense it is difficult to identify an alternative. In view of this highly subjective treatment of what could be considered the dependent variable of these thought experiments, perhaps it is unsurprising that results are inconsistent and inconclusive. Further, there is some evidence to suggest that intuitions about knowledge in Gettier cases vary by culture (Weinberg, Stich and Nichols, 2001), which might weaken further the idea that such intuitions are reliable.

I will conclude with one final thought on Gettier cases. This entire discussion seems, in many ways, to suffer from an oversimplification of the way in which people know. There seems to be an implicit assumption that people are possessed of sets of discrete facts, each of which can be simply expressed in natural language and analyzed separately. This could easily be the subject for an entire paper in itself, but that assumption seems patently false. Smith does not believe in isolation that someone with ten coins will get the job; he believes it as part of a larger belief state that includes his assumption that the person in question is Jones. If the sentence “Someone with ten coins in their pocket will get the job” did somehow get retrieved from his memory without any reference to the associated circumstances, it would be very strange – we might call that a form of amnesia, and we would certainly not say that he knew that fact anymore. Again, this is far too large of an issue to address here, but it seems to be an essential dilemma with the way in which the question of knowledge is being approached in this literature.

4 : Bibliography

- Gettier, E. (1963), “Is Justified True Belief Knowledge”, *Analysis* 23: 121-123. <http://www.ditext.com/gettier/gettier.html>
- Harman, G. (1973), *Thought*. Princeton: Princeton University Press.
- Hetherington, S, “Gettier Problems”, *Internet Encyclopedia of Philosophy*, <http://www.iep.utm.edu/gettier/#H2>
- Fodor, J.A., M. Garrett, E. Walker, and C. Parkes (1980). ‘Against Definitions’. *Cognition* 8: 263-367.
- Lycan, W. (2006), “On the Gettier Problem problem”, in *Epistemology Futures*, Stephen Hetherington (ed.), Oxford: Oxford University Press, pp, 148-68. URL: <http://www.unc.edu/~ujanel/Gettier.htm>
- Rozeboom, W.W. (1967). ‘Why I Know So Much More than You Do’. *American Philosophical Quarterly*, 4: 281-90. Reprinted in Roth and Galis (1970).
- Russell, Bruce, "A Priori Justification and Knowledge", *The Stanford Encyclopedia of Philosophy (Fall 2012 Edition)*, Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/fall2012/entries/apriori/>>
- Weinberg, J.M., S.P. Stich and S. Nichols (2001). ‘Normativity and Epistemic Intuitions’. *Philosophical Topics*, 29: 429-60.
- http://en.wikipedia.org/wiki/Gettier_problem