

Are the Gettier Cases Examples of Knowledge as Justified True Beliefs?

The question about knowledge has been part of philosophical inquiry since its inception, but it is in the last 100 years or so, that the epistemological debate produced countless theories of knowledge and demanded that the question of what knowledge is dealt with in a more consistent and conclusive manner. However, these theories have not necessarily advanced the epistemologists' efforts to define knowledge *per se* for they have posited additional questions and outlined new problems rather than elaborate on the original problem of knowledge. More than that, the quest for defining knowledge has morphed into an entirely new and different pursuit, leaving behind the initial investigation of knowledge. This new enterprise is the search for the necessary and sufficient conditions for knowledge, which is generally associated with Edmund Gettier's claim that *justified true belief* does not adequately define knowledge for a belief could be true and justified, and yet one can still be lacking knowledge.

That said, there has been fruitful number of theories offering solutions to the Gettier problem and attempting to define the conditions for knowledge as necessary and sufficient. Regrettably, as new solutions are being proposed, these solutions more often than not, come with ambiguities and problems of their own, which in turn creates the need for additional adjustments. And every so often, these adjustments contribute to the problem instead of solving it. I will not be making yet another attempt to preserve the idea of knowledge as *justified true belief*. On the contrary, I want to inquire whether the Gettier cases are in fact examples of *justified true beliefs* in the first place. For Gettier's contention is that his examples present considerable difficulties for all of the proposed and somewhat accepted theories of knowledge as *justified true belief*. He

believes he has presented us with two cases where knowledge is either based on false premises, or it is merely a lucky guess, even though the beliefs in consideration are true and justified.

But before I turn my attention to the Gettier cases, I must note a persisting issue with Gettier's rather short paper. To wit, the conflation of three entirely disparate problems within it: (1) the problem of what knowledge is or how we define it; (2) the problem of what the conditions for the assertion of knowledge are once knowledge is identified; and (3) the problem of what the necessary and sufficient conditions are for a belief to be identified as justified. Perhaps willfully, Gettier combines these three problems throughout his analysis, but I do not believe this is his intention.

The title of his paper "Is Justified True Belief Knowledge?" for instance, leads one to conclude that he will be contesting the notion of knowledge as a *justified true belief*, but in fact, he is questioning the adequacy and sufficiency of the conditions for the *assertion* of knowledge. For he states that: "Various attempts have been made in recent years to state the necessary and sufficient conditions for someone's knowing a given proposition." (E. Gettier, *Analysis*, p. 121) This can only be interpreted to mean that one needs to show justification for the assertion of a given proposition, or what conditions must be satisfied for one to assert that one knows and not, what makes the proposition one knows knowledge rather than something else. Put otherwise, Gettier's analysis requires the acceptance and adoption of the idea that knowledge is in fact *justified true belief* first, and only after, can one inquire whether justified true belief sufficiently defines knowledge. It seems Gettier is looking for the necessary and sufficient conditions for a belief to be defined as *true* and *justified*, rather than the necessary and sufficient conditions for knowledge - an entirely different inquiry. These three problems have standing on their own and need to be investigated separately starting necessarily with the definition of knowledge. Gettier

needs to explain what knowing is, before he can search for the necessary and sufficient conditions for knowing and show how it differs from believing if at all, for he takes knowledge to be belief. Should not Gettier also tell us why knowledge is *justified true belief* and demonstrate that indeed it is before he can argue why it does not sufficiently define knowledge. It seems Gettier is arguing for and against the idea of knowledge as *justified true belief* at the same time.

Notwithstanding these issues with Gettier's claim, I will not pursue them farther for it will lead my analysis in a different direction than the one intended. I will accept Gettier's premise that knowledge is *justified true belief* and inquire instead, whether the cases he so cleverly designed are actually examples of *justified true beliefs*. Put otherwise, whether the necessary and sufficient conditions for a belief to be identified as *true* and *justified* are met. I will show that these conditions, however defined, are not met, i.e., the beliefs the actors in his cases hold while true, are not justified. Incidentally, this makes the question of what the necessary and sufficient conditions for knowledge are, premature to say the least.

Now, what is a belief? Understandably, Gettier does not address this question, nor does he analyze the truthfulness of a belief - he has taken for granted that knowledge is a *belief* and proceeds from there. As trivial as this question might seem, it creates difficulties for the idea of knowledge as a belief, justified or otherwise, if not clarified. For a belief is a mental state or a propositional attitude about an object, which attitude does not take into account the truthfulness of the belief's object. The acceptance of the belief's object is what constitutes a belief irrespective of its truth or reality. Put otherwise, whether the object of a belief conforms to given state of affairs or not, does not change that belief's essence. One can still maintain one's

propositional attitude about an object or accept the truth or reality of that object even if evidence suggests otherwise, i.e., a belief whose object is false, is still a belief.

Here, one ought to also ask what does it mean for a belief to be true? To define belief as true seems unavailing for belief is essentially always true so long as it is held. The object of a belief on the other hand, can be false or lack reality, but this is not what the proponents of knowledge as *justified true belief* have in mind. They insist that the belief must be true and not its object which presupposes that one can hold a false belief, i.e., have a false propositional attitude about an object, or be in a false mental state of acceptance of the belief's object. I would not know where to begin my objections to such notions. It seems, belief can be true only, and the condition for the truthfulness of a belief is unnecessary, or redundant at best. For one can either hold a belief which would be true in virtue of its nature, or not hold a belief which in this case, one would be lacking belief rather than holding a false belief. Thus, a belief can be true only, or otherwise it would be non-existent.

This alone, ought to be enough for one to concede that a belief, true or not, is not knowledge and the issue about justification does not even get off the ground. But I am certain, that the proponents of knowledge as *justified true belief* are sure to insist on an analysis of a belief's justification as I promised, so let me see to it.

Gettier claims that his examples show *S* being justified in believing that *p* without *S* in fact knowing that *p*. I will show that the Gettier cases as constructed are actually *not* examples of *justified* beliefs, albeit true and that the argument he puts forward is inadequate. I will also demonstrate that the first Gettier case is merely hypothetical, the second altogether incoherent and the conditions for a belief to be identified as justified in the cases he presents us with, are in fact *not* satisfied. The most he can claim is, that perhaps the utility of logic as a cognitive tool to

assist us in our search for knowledge is rather limited. Besides, simply relying on logical form to warrant the truth of a proposition, in virtue of itself, is at best wanting.

Let me now outline the Gettier cases. He tells us, that Smith and Jones applied for the same job. Smith happens to have counted the coins in Jones' pocket and has the assurance of the company's president that Jones will be hired. Hence, Smith has strong evidence for the conjunctive proposition that:

(a) Jones is the man who will get the job, and Jones has ten coins in his pocket.

Gettier proposes that (a) entails the following:

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

And if Smith recognizes said entailment, he is justified in believing **(b)** on the grounds of **(a)**.

Gettier further supposes that Smith, unaware of the ten coins in his own pocket, gets the job instead of Jones. This would falsify **(a)**, but would prove **(b)** true nevertheless, thus the conditions for knowledge are present which are the following: **(b)** is true, Smith believes that **(b)**, and Smith is justified in believing **(b)**. Regardless, Smith does not know **(b)** for he infers it from **(a)**, which is false.

Similarly, in the second case Smith has evidence that:

(c) Jones owns a ford.

Smith also has a friend Brown, but does not know where Brown is, so he comes up with the following propositions:

(d) Either Jones owns a ford, or Brown is in Boston;

(e) Either Jones owns a ford, or Brown is in Barcelona;

(f) Either Jones owns a ford, or Brown is in Brest-Litovsk.

Here again **(d)**, **(e)**, and **(f)** are entailed by **(c)**, which Smith has evidence for and is therefore justified in believing all three of them. However, if Jones does not own a ford, but Brown happens to be in Barcelona, of which Smith is unaware, then it appears Smith knows **(e)** even though the proposition he believes is entailed by a proposition that is false, namely **(c)**.

In each of the two examples Gettier demonstrates, or he is convinced he does, that the conditions for knowledge while necessary are not sufficient. He notes that *S* being justified in believing that *p* is a *necessary* condition, but not *sufficient* for one can be justified in believing a proposition that is entailed by a false one, in which case the belief though justified cannot be identified with knowledge. Thus, an additional property is needed for a *justified true belief* to be defined as knowledge. But are the conclusions in both cases entailed by the premises, and if they are, do the premises themselves warrant the conclusions? Put otherwise, is Smith in fact justified in his beliefs, and what is the premises' truth value?

As I noted before, there are numerous proposals about how to reinforce the conditions making a belief justified. However, as admirable as these efforts are, all of them have been disputed and found to be lacking and none of them actually considers the possibility that the Gettier examples might *not* be examples of *justified true beliefs*.

Generally, all the theories proposing adjustments to deal with the sufficiency of the conditions for knowledge start with the presumption that the Gettier cases are examples of *justified true beliefs*, and all one needs to do is, to account for the appearance of false premises. When in fact, what one's concern ought to be, whether the Gettier cases are examples of *justified true beliefs* in the first place. Wherefrom the question: what does Smith base his belief that Jones *will get the job* on, how does he justify this belief, and is there a relation between the proposition *Jones will get the job* and *Jones has ten coins in his pocket*?

Smith's evidence that Jones *will get the job* is the company's president's assurance that Jones will be hired. Smith has also counted the coins in Jones' pocket and based on that and the president's assurance, he concludes that *The man who will get the job has ten coins in his pocket*. However, the proposition *Jones will get the job* is a proposition about the future whose truth value cannot be reasonably determined, and which makes the entailed proposition *The man with ten coins in his pocket will get the job* mere possibility rather than necessity. Furthermore, the proposition *Jones will get the job* is not related to the proposition *Jones has ten coins in his pocket* for there is no requirement that the man getting the job must have ten coins in his pocket. For the entailed proposition *The man with ten coins in his pocket will get the job* suggests, or could be interpreted to suggest, that the ten coins in one's pocket are what will get one hired or that possessing the coins is a requirement for hire.

Moreover, by concluding that *Jones will get the job* Smith is merely guessing for his conclusion is based on the possibility that the president of the company will keep his word. Certainly, it appears Smith believed this was the case, but his belief was not justified and Gettier does not think it necessary to elaborate on the possibility that the company's president might change his mind. Additionally, the company's president's assurance is not even "highly warranted inference" (A. Goldman considers this notion in his *Causal theory of knowledge*) and the likelihood of something happening is not a proposition deduced from a fact. Likewise, the proposition that *The man who will get the job has ten coins in his pocket* is a proposition entailed by an expectation that a prediction about the future will be correct, rather than being based on a proposition whose truth value is determinable.

More than that, Smith was not certain either that there were not any other Jones' that interviewed for the job. And even if Jones did get hired, Smith still would have had no

knowledge. He would have been simply correct in his prediction that *The man who will get the job has ten coins in his pocket*, and surely a prediction ought not to be considered sufficient justification for a belief, correct or otherwise.

Of course, there is the argument for induction as knowledge, but I do not believe this is what Gettier had in mind when he crafted this example. Howbeit, asserting a proposition entailed by a prediction, which prediction itself is inferred solely from the possibility that a man might keep his word ought not be considered knowledge, irrespective of the definition of knowledge. It seems the problem posited by this particular example would be better formulated as an inquiry as to whether an inference based on the possibility of a prediction being correct is sufficient to justify a belief, rather than is *justified true belief* knowledge. And again, the proposition *The man with ten coins in his pocket will get the job* is a proposition about the future whose truth value is indeterminable at the moment of uttering it. This belief is hardly justified, let alone knowledge in addition to its being entailed by the presumption that a prediction about a future event will be true, a prediction based solely on someone's promise to perform a certain act in the future, and not on given and known states of affairs.

But to those who would be quick to accuse me of shifting the argument, let me consider what Immanuel Kant has to say in his discourse on judgments in his *First Critique*, which the two Gettier cases consider though Gettier describes them as propositions rather than judgments.

According to Kant "judgments are functions of unity among our representations" and a function is "the unity of the act of arranging various presentations under one common presentation". (Kant, *CPR*, p. 122, B94) He further states that: "logic considers the judgment also in terms of what value or content there is in a logical affirmation" (Kant, *CPR*, p. 125. A72) and if we apply what Kant states about judgments or propositions to Gettier's first case the content of

the proposition *Jones will get the job* must be considered and not merely the form of the proposition. And since this is a proposition referring to a possible future event, we are not in a position to assign truth value to it.

Furthermore, Kant observes that hypothetical judgment represents a relation between two propositions and *Smith-Jones* case would be an example of one such hypothetical judgment (though Gettier does not put the example in this form). In this case the relation would be that between the propositions *Jones will get the job* and *Jones has ten coins in his pocket*, and the entailment of this conjunctive proposition *The man who will get the job has ten coins in his pocket*. As Kant points out “only the implication is thought through [a] hypothetical judgment” (Kant, CPR, p. 127, B99) that is, *Jones will get the job* is a proposition that can only be “thought as an optional judgment, i.e., one that it is possible for someone to assume; and only the implication” (Kant, CPR, p. 127, B99), in our case *The man who will get the job has ten coins in his pocket*, can be asserted. Kant further clarifies:

This is also the reason why such optional judgments, even if manifestly false, can still, when taken problematically, be conditions for the cognition of truth. Hence a problematic proposition is one that expresses only logical possibility (which is not objective possibility). i.e., it expresses a free choosing to let such a proposition stand...thus in a hypothetical syllogism, e.g. the antecedent occurs problematically in the major premise, but assertorically in the minor premise. (Kant, CPR, p.128, B 101)

So, what Kant tells us is, that judgments which are “manifestly false” can be cognized as true. But this is only, because we choose to accept them as true - which is the only way the statement *Jones will get the job* can be taken. Smith makes a decision to treat it as a truthful statement, and this is what justifies his belief. But if the only thing which makes Smith’s belief justified is his election to assign true value to the company’s president’s promise, then clearly the

condition for a belief to be justified is *not* met and *not* satisfied in the first place. Thus, this case is *not* an example of a justified belief, true or otherwise.

Here, I would want to answer those who would object that Kant never really considered modal logic though modality is part of his categories, which should be enough for those questioning Kant's remarkable foresight in this regard. Also, I would want to answer those who would describe Gottlob Frege's outright dismissal of modal logic as the same lack of understanding which plagued Kant's epistemology – it seems, even modal logic cannot help Gettier demonstrate his claim. Let me consider then, what modal logic or tense logic in this case, has to say about Gettier's first case.

But before that, I shall recapture what was established so far about the Smith-Jones case. Gettier presents us with a conjunctive proposition, which consists of two propositions:

(p) Jones will get the job and **(q)** Jones has ten coins in his pocket.

This conjunctive proposition is the major premise or antecedent of a hypothetical judgment whose consequent is:

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

Or presented in the language of logic it states the following: $\{(p \ \& \ q) \rightarrow r\}$.

Now the truth value of the conjunctive proposition is only true if both **(p)** and **(q)** are true, and since **(p)** could be false if the company's president changes his mind which in fact turns out to be the case, then the conjunctive is either true or false, or indeterminable. This is what makes this hypothetical judgment "problematic," to use Kant's term – it is what makes the Smith-Jones case *not* an example of a justified belief for Smith could believe that it is possible that *The man with ten coins in his pocket will get the job*, however, he is not justified to believe it for it will not necessarily be the case. And certainly, one should not define this as knowledge.

I can hear the objections hurled my way however, about hypothetical judgment not needing a true antecedent for the consequent to be true referring to Russell's conclusion that all false propositions entail a true one. But then, this argument falls flat for it is precisely what Gettier argues – that Smith's implication is not knowledge, because it is entailed by a false antecedent. He insists that the problem with the proposition *The man with ten coins in his pocket will get the job* is that it is entailed by a false proposition, and it is what makes this case counterexample of knowledge as *justified true belief*. Let me then put this in modal logic terms:

$$\mathbf{Vmt \{(Fp \ \& \ q) \rightarrow r\} = 1 \text{ iff } \mathbf{Vmt (Fp \ \& \ q) = 0 \text{ or } \mathbf{Vmt (r) = 1}}$$

Further: $\mathbf{Vmt (Fp \ \& \ q) = 1 \text{ iff } \mathbf{Vmt (Fp) = 1 \text{ and } \mathbf{Vmt (q) = 1}}$

And: $\mathbf{Vmt (Fp) = 1 \text{ iff there is some time } t_1 \text{ such that } \mathbf{tRt_1 \text{ and } \mathbf{Vmt_1 (p) = 1}}$

What these formulas say is that at some future point (**p**) will be true and this fact together with (**q**) being true now, entails (**r**). Now, there is not such future time following the conversation between Smith and the company's president for the president never hires Jones, therefore, $\mathbf{Vmt_1 (p) = 0}$ but we need it to be $\mathbf{Vmt_1 (p) = 1}$ as it is what makes the proposition *Jones will get the job* false and consequently the conjunction of (**p**) and (**q**) false as well. Hence, Smith was never justified in believing that *Jones will get the job* and is consequently not justified to conclude that *The man with ten coins in his pocket will get the job*.

It is probably why Kant calls these propositions problematic judgments – they can only be true under stipulated conditions and circumstances which Gettier leaves unspecified in his example. However, even if he stipulated the particular circumstances that would define the conjunctive proposition as true, the proposition *The man with ten coins in his pocket will get the*

job will be problematic still by definition and will not be an example of a justified belief regardless, for it is a proposition about future events.

Let me now examine the second Gettier case where Smith concludes that either Jones owns a ford or Brown is either in Boston, Barcelona, or Brest-Litovsk. Here we have a disjunctive judgment which is necessarily true as long as one of the propositions which constitute this judgment is true. Now Gettier's contention is that Smith knows that Jones owns a ford, because Jones has owned a ford in the past, therefore, this must be the true proposition of the two that construct the disjunctive judgment which renders it true. Here again, Getteir is playing with fire so to speak since the fact that a proposition was true in the past does not guarantee its truthfulness in the future. Put otherwise, the fact that Jones has owned a truck in the past does not necessitate Jones' ownership of a truck in the present or future, or at the moment of uttering the statement.

Additionally, a disjunctive judgment according to Kant: "contains a relation of two, or of several propositions, to one another... it is a relation of logical opposition, insofar as the sphere of one proposition excludes the sphere of the other; yet it is at the same time a relation of community..."(Kant, *CPR*, p. 128, B 99). What Kant tells us is that the propositions, whose relation constitutes a disjunctive judgment, are *mutually exclusive* and their relation is reciprocal:

"Hence in a disjunctive judgment there is a certain community of cognitions. This community consists in the fact that cognitions reciprocally exclude one another, and yet as a *whole* determine thereby the true cognition; for taken together, they constitute the whole content of a single given cognition." (Kant, *CPR*, p. 128, B100)

If we were to apply Kant's elucidation as to the constitution of disjunctive judgment and the relation its constituting propositions are in with one another to the second Gettier case, Jones-Brown, we realize that the proposition **(p)** *Either Jones owns a ford* and the proposition **(q)**

Brown is in Boston are in fact *not* mutually exclusive, thus their relation is *not* reciprocal. This applies to the other two propositions: **(r)** *Either Jones owns a ford, or Brown is in Barcelona,* and **(s)** *Either Jones owns a ford, or Brown is in Brest-Litovsk* – they are all the same disjunctive judgments whose constituent propositions do not exclude each other. There is no conceivable reason why any of the propositions we consider will preclude one another from being true simultaneously, and Gettier does not bother offering any.

Though, the purely logical form of all three of these judgments is one of disjunctive judgment, when we consider the content of the judgments, and we must in order to decide whether they are mutually exclusive or not, the fact that *Jones owns a ford* does not preclude Brown from being in either of the places suggested by the example. That compels us to admit again, that a logical form alone is not sufficient to assign truth value to a proposition. For after all, a proposition should not be about simply putting together elementary propositions and connecting them with the *or* connective, regardless of the utter non-sense they may amount to. Ludwig Wittgenstein tells us that “the proposition is not a mixture of words,” (L. Wittgenstein, *Tractatus*, 3.141) but a combination of names arranged in a particular and definitive way, not randomly for “only facts can express sense, a class of names cannot”. (L. Wittgenstein, *Tractatus*, 3.142) So, what do we gain in terms of facts, or even basic information with regard to the second Gettier case? Nothing that can be identified as such, let alone defined as knowledge – neither of the three propositions conveys any information whatsoever.

I am sure many would be tempted to argue that the inclusive form of a disjunctive proposition allows for both propositions to be true, so they needn't exclude each other, and that Kant does not consider such a possibility. But this would be just another example of fallacious reasoning for the inclusive form of the disjunction $(p \vee q)$ for example, would be $[(p \vee q) \vee (p \&$

q)] which is just another disjunction only this time a compound disjunction. The principle of reciprocity is in fact preserved in the compound disjunction for if $(p \ \& \ q)$ is true, then $(p \vee q)$ is not and *vice versa*. In addition, Gettier stipulates that only one of the constituent propositions of the disjunction is true and this means that he posits his case as a disjunction in its exclusive form, which would then look like that: $[(p \vee q) \ \& \ \sim(p \ \& \ q)]$. Gettier needs one of the constituents to be false in order to demonstrate that a belief while true and justified, does not necessarily amount to knowledge.

Agreed, but knowledge must be more than simply combining two propositions with the disjunct *or*, so as to form a disjunction particularly, a disjunction which conveys no information whatsoever. Evidently, Gettier does not correctly employ a reasoning process here, and offers a proposition which is entirely senseless, to put it in Wittgenstein's terms.

Of course, this does not prove that knowledge can be defined as *justified true belief* but this is not what the purview of this paper is, though it is a discussion I would perhaps come back to at another time. What I hope I was able to show is that the problem of whether *justified true belief* is knowledge, is not posited or even expanded on by the Gettier examples as he contends, nor does he demonstrate the insufficiency of the conditions for knowledge. Whether we know what knowledge is, and whether we can define it as *justified true belief* is neither answered, nor the answer to this question inhibited by the Gettier cases for they are not examples of *justified true beliefs*.

In fact, I agree with Gettier that knowledge is *not* justified true belief, but not because his cases show that the conditions for knowledge are insufficient, but because knowledge is not a belief at all – these are two entirely distinct categories. Moreover, it seems logic cannot actually assist us beyond our own abilities to reflect and reason and relying strictly on logical axioms and

rules has its own limitations possibly much larger than one expects. One does not need to be acquainted with modal logic to know that *Jones will get the job* is a proposition whose truth cannot be determined at the time of uttering it, and that knowledge is a concept that ought not be applied to future events. The same can be noted about the second case – why would Smith conclude that *either Jones owns a ford, or Brown is in one of three cities*. What would compel Smith to believe that Jones owning a vehicle would guarantee Brown being in any of the cities? There isn't anything that could. Yet, Gettier wants us to believe that this is not only a regular occurrence in the state of affairs in the world, but that it is only natural that it should be the case.

Perhaps, logic is only a cognitive tool we utilize, and as useful as it might have proven to be, it is not sufficient for us to rely strictly on it without any consideration whatsoever, given to the content of a proposition. Kant is very clear when he says that:

“...with mere logic no one can venture to make judgment about objects and assert anything about them. Rather, we must first go outside logic to obtain well-based information and connecting it in a coherent whole in accordance with logical laws, or - better yet - in order only to test the information by these laws.” (Kant, *CPR*, p. 114, B85)

But more than that, perhaps the answer to all these questions lie in our first knowing what knowledge is, or at least attempting to define it, while recognizing logic's limits in the process. Perhaps, we already have a definition of knowledge, which when given the attention it deserves, will aid us in discovering the necessary and sufficient conditions to identify belief as justified, and the conditions which would justify our assertion of knowledge. Albeit, I will have to leave this investigation for my next project.

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