

Gettier vs. Justified True Belief

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Abstract: This essay is a response to the famous 1963 paper by Edmund Gettier. It offers a thorough interpretation of the “Justified True Belief” model of knowledge, which is used to challenge Gettier’s claims, and addresses both of the specific examples given in his paper. It then applies these arguments generally to any conceivable Gettier case and explains why Gettier’s objections to the “Justified True Belief” model are not sufficient grounds to abandon it.

I. Introduction and history

The search for knowledge is one of the most compelling and powerful forces behind the development of humanity. Knowledge is like a crystal of utmost rarity, perhaps the most sought-after commodity in the entire universe, so the quest to acquire it is expectedly daunting. Such a difficult quest is made even more difficult when examined technically, because an obvious observation is made: knowledge is also quite unlike a crystal, in the sense that its definition is not clear, but instead is rather nebulous. This issue of determining what exactly constitutes knowledge was thought to have been conquered by Plato in his *Theaetetus*. Here, Plato introduced the “justified true belief” model of knowledge, which was accepted for over 2000 years. This model defines knowledge as such:

S knows that P if and only if:

1. S believes that P
2. P is true
3. S is justified in believing P

This model requires that for a belief to be considered knowledge, the belief must be true and the believer must have justification for holding the belief. The philosophical consensus was that this view expressed sufficient requirements for knowledge—until 1963 when Edmund Gettier published a short paper on the

subject. Gettier’s paper appeared to reveal problems with the “justified true belief” model.

Gettier’s method of disputing Plato’s definition of knowledge is to offer counter-examples to the view; his examples describe situations in which beliefs appear to fit the “justified true belief” model of knowledge, but do not actually constitute knowledge. His goal in the paper is to prove that Plato’s definition is not sufficient since the cases of non-knowledge appear to fit the definition. Thus, the view that shook the philosophical world was born and dubbed the Gettier problem.

However, there is no need to abandon the “justified true belief” model due to Gettier’s paper. When interpreted fully and correctly, it firmly withstands the Gettier examples.

II. Justified true belief: a more precise interpretation

“Justification” in the Gettier-interpreted sense is not sufficiently robust to endure Gettier’s counter-examples, which is the core issue with Gettier’s objection; this causes the justified true belief model to appear insufficient as a definition of knowledge. Thus, a complete description of what actually constitutes justification is necessary to explain why the model accurately describes knowledge.

First, a new term to describe a “step” in the knowledge process should be introduced (however, note that it is simply an already-existing step in

achieving “justification” for a belief; this is not an additional condition for knowledge). The new term is “rationale,” and the definition of “rationale” here is the reasoning behind a belief. Every time, in the knowledge-acquiring process, an individual begins by forming a belief. Either simultaneously or in immediate succession, the individual formulates his “rationale” behind the belief. The rationale could be something completely independent of any evidence—for example, an individual could form the belief that eating moth balls is healthy, and his rationale is he likes the design on the moth balls’ packaging; the design on packaging is completely unrelated to whether moth balls are healthy when ingested. The rationale could also be contrary to the evidence—an individual could form the belief that smoking cigarettes is healthy; his rationale could be that it alleviates his stress, and everything that alleviates stress is healthy. When the evidence regarding the health effects of smoking cigarettes is considered, it is obvious that his rationale is not supported. In cases such as these, the rationale does not constitute justification.

To explain why these do not constitute justification, and to explain what does, a second new term should be introduced. This term is “well-founded.” Such a term was used in an account of justification by Richard Feldman, so it is important to note that the use and definition of this term here is different from those pertaining to Feldman’s paper. The definition of “well-

founded” here is to be fully based on — and consistent with — firm, sufficient evidence and truth. The term is applied to an individual’s rationale for his belief. In the previous examples, the individuals’ beliefs had corresponding rationales that were either based on no evidence, or inconsistent with the evidence. Thus, they were not well-founded rationales and therefore did not constitute justification. If, on the other hand, a rationale is well-founded, then it does constitute justification. Justification should be interpreted to inherently require a well-founded rationale. Otherwise, “justification” can be achieved by using insufficient or faulty evidence, and therefore cannot be used to define knowledge.

So far, it can be noted that the only examples of rationales that are not well-founded have involved false beliefs, which means the beliefs never had a chance to constitute knowledge. Now that an account of justification has been established, though, the focus can return to the complete definition of knowledge. The broad “justified true belief” model, as described earlier, can now be elaborated using this new account of justification:

S knows that P if and only if:

1. S believes that P
2. P is true
3. S is justified in believing P, because:

- a. S has a rationale for believing P
- b. The rationale is well-founded

Under this more precisely-defined model, there can be cases in which S believes that P, P is true, and S has a rationale for P—but the rationale is not well-founded and the belief is therefore not justified. For example, S could believe that Earth orbits the Sun; his rationale could be that his cat is gray. Clearly, his rationale is not based on evidence, and thus is not well-founded; this means he has a true belief, but no justification, and therefore does not actually have knowledge in the situation. In another example, S could believe that Earth orbits the Sun; his rationale could be that:

The Sun is one giant proton while the Earth is a giant electron (which is due to his strong apparent evidence for this, which could be because he was told so, both by astrophysicist Neil deGrasse Tyson and by the “science guy” Bill Nye, two of the world’s most reputable scientists), and S was familiar with the fact that an electron orbits a proton in Hydrogen atoms due to his basic childhood/adolescent education in chemistry and physics. Thus, he is led to conclude that Earth orbits the Sun since Earth is an electron, the Sun is a proton, and one electron orbits one proton incredibly often in the universe.

Here, S again has a true belief. This time, he has a more in-depth rationale. However, despite how compelling his rationale may seem (given the

reputability of his sources of information) it is based partially on falsehood (particularly the falsehood that the Sun is a proton and the Earth is an electron); thus, it is not based fully on truth and therefore does not constitute justification. Since the rationale does not constitute justification, the belief (despite being true) does not constitute knowledge. It is simply a case of “lucky” true belief. Just as a belief must be true to become knowledge, a rationale must be well-founded to constitute justification.

III. Directly refuting Gettier

The examples offered in Gettier’s paper are intended to demonstrate that sometimes “lucky” true beliefs fit the criteria for knowledge under the justified true belief model. However, now that the justified true belief model has been fully described and clarified, the solution to the so-called “Gettier problem” can be revealed. It has been established that “lucky” true beliefs cannot constitute knowledge, due to the strict nature of justification, and the high standards to which a rationale is held. Now, Gettier’s examples can be solved by being shown to not actually constitute knowledge under the justified true belief model.

Gettier offers two cases in his paper. Each case will be examined and refuted. The first case involves a subject Smith, who is competing for a job: Smith believes that the man who will get the job has 10 coins in his pocket. His rationale for believing this is that:

Jones is the man who will get the job (which is due to his strong apparent evidence for this, which could be because he was told so by the president of the company), and Smith was familiar with the fact that Jones had 10 coins in his pocket due to Smith having counted the coins himself. Thus, he is led to conclude that the man who will get the job has 10 coins in his pocket because Jones will get the job and Jones has 10 coins in his pocket.

In the example, Smith ends up getting the job; Smith also unknowingly had 10 coins in his pocket. This means that Smith had a true belief that the man who will get the job has 10 coins in his pocket. Clearly, this is a “lucky” true belief, just as in the final example in section II. Gettier claims that this example involving Smith and Jones fits the definition of knowledge under justified true belief, and since it is clearly not knowledge but instead simply a lucky true belief, the justified true belief model must be flawed. However, according to the fully-elaborated account of the model, as given in section II, Gettier’s case does NOT, in fact, fit the definition of knowledge under justified true belief. This is because Smith’s rationale relies on a falsehood. Just as the final example in section II relied on the false claim that the Sun is a proton and the Earth is an electron, Gettier’s first case relies on the false claim that Jones will get the job. Thus, Smith’s rationale is not well-founded, and therefore does not constitute justification. This means that under the justified true

belief model, Gettier’s first example does not fit the criteria for knowledge and is not a counter-example to the model.

Gettier’s second example is slightly less straightforward than his first. This is due to the use of an “Or” statement. In logic, an “Or” statement is true if one or more of its constituent clauses is true. The case is as follows: Smith believes that Jones owns a Ford OR Brown is in Boston. Here is how he explains this:

Jones owns a Ford (which is due to his strong apparent evidence for this, which could be due to Jones always having owned a car that is a Ford at all times in Smith’s memory, and to Jones having just offered Smith a ride while driving a Ford). Also, if Jones does own a Ford, then any composite “Or” statement that includes “Jones owns a Ford” will be just as certain to be true as the single clause that “Jones owns a Ford,” regardless of how arbitrary the other component(s) are, such as “Brown is in Boston” despite Smith’s complete ignorance of Brown’s whereabouts. Since Smith has strong apparent evidence for believing that Jones owns a Ford, and since “Jones owns a Ford OR Brown is in Boston” is true if Jones owns a Ford, he is led to conclude Jones owns a Ford OR Brown is in Boston.

As it turns out, Jones does not own a Ford, but Brown happens to be in Boston by pure coincidence. Clearly, this is another example of “lucky” true belief. Gettier claims that this example also fits under the definition of knowledge given by the justified true belief model,

and that it therefore a counter-example. Despite the apparent complications introduced in this case that were not present in the previous examples, the solution is still just as straightforward. Smith does have a true belief. However, his rationale is, once again, based on falsehood; just as Case 1 relied on the false claim that Jones will get the job, Case 2 relies on the false claim that Jones owns a Ford. Thus, Smith's rationale is not well-founded, and therefore does not constitute justification. Just as in the last example in section II, as well as in Gettier's Case 1, the individual does not have justification for his belief, and his "lucky" true belief therefore does not constitute knowledge under the justified true belief model. Thus, neither of Gettier's cases are actually counter-examples to the model, which means his paper does not dispute it.

Now that both of Gettier's original cases claiming to be counter-examples have been disputed, it could be asserted that the counter-arguments to Gettier simply exploit particular features that are specific to those examples; after all, there are numerous independently-conceived "Gettier examples" in existence. To claim that Gettier's ideas and points have been completely discredited due simply to the rejection of only two of the countless "Gettier examples" in existence would be overambitious and questionable. These rebuttals from a defender of Gettier would be valiant and seemingly legitimate, and perhaps could give the appearance of a stalemate in the argument.

Responding to an opponent making such claims would be quite simple, however. Every "Gettier example" relies on the same feature as Gettier's cases; a "lucky" true belief with a rationale based on falsehood or otherwise insufficient evidence. In all such cases, the rationales, as shown in sections II and III, do not constitute justification, and the beliefs therefore do not constitute knowledge under the definition given by the justified true belief model. Furthermore, even more generally than that, not only can it be contended that no true counter-examples have been raised thus far to dispute the justified true belief account, it can also be contended that no counter-examples can ever exist that successfully dispute the account in its form as described by section II. There cannot be a belief that is true, whose rationale is based only and completely on truth and sufficient evidence (which makes it well-founded and therefore constitutes justification), whose apparent knowledge is revealed to be simply "lucky" true belief. Given the factual nature required of the rationale—the truth of which being as important to having knowledge as the truth of the belief itself—to constitute justification, it is not possible for a true belief that is justified (i.e. a true belief, supported by truth) to be simply "luck." In cases where there is both a true belief, and a rationale constituting justification, the belief will always legitimately be knowledge, and will never be the product of "lucky" true belief. These

responses to the Gettier supporter nearly finish the solution to the Gettier problem.

The final objection to these arguments against Gettier would be to disagree with the definition of justification itself. In such an argument, the opponent would say that falsehoods can justify beliefs, and would point, yet again, to the Gettier examples. The opponent would insist that the beliefs in those examples are justified. Perhaps he would also propose an example of his own: Q believes that X is Sicilian, and the belief is true. Q's rationale is:

Everyone Q has ever seen that looks like X has been Sicilian (which is based on each person's testimony that he/she is Sicilian). Q is led to conclude that X is Sicilian, too.

However, the people on whose testimony the rationale was based were intentionally fooling Q; they are all actually from Calabria, an Italian region north of Sicily, which means they are not Sicilian. The opponent, after giving the example, would then say that Q is justified despite his rationale being based on falsehood. The quick response to this opponent's example is to point out that it is simply another Gettier case, and has therefore already been thoroughly refuted. However, to complete the argument, a more general explanation must be given to this opponent to explain why Q is not justified.

In the Gettier examples, or in the "Sicilian" example at hand, it may seem intuitive to believe that the

subjects are justified due to their strong apparent evidence, regardless of whether their rationales are based on truth; the rationale seems strongly supported and reasonable enough to constitute justification. This general point, and not the specific "Sicilian" example, is the true argument of the final opponent; this is perhaps the strongest argument against the argument for "justified true belief." However, it can be dispelled too. Consider an example in which Y believes that apples are healthy; assume this is a true belief. Y's rationale is that apples are manufactured by wizards using magical unicorn dust that is 100% beneficial to the human body when ingested. Clearly, Y is by no means justified, since his rationale is based on blatant falsehoods; even the opponent at hand would agree, and likely would say that such an absurd example does not apply to his argument. In fact, it does. The reason Q is not justified in the "Sicilian" example, and more generally the reason justification cannot be based on falsehood, is as follows. If it is obvious and easily agreed-upon that Y is not justified in the "apple" example due to his rationale being based on falsehoods, then it must be accepted that falsehood-based rationales can never constitute justification. If one does not accept this, then his account of knowledge will be compromised, because subjectivity will thus become a feature of it; subjectivity will play a major role in deciding when falsehood-based rationales are acceptable and when they are not. The acquisition of knowledge is inherently an objective

enterprise; therefore any account of knowledge that includes subjectivity as a feature is inherently compromised. To clarify this point further still: the definition of knowledge must be universally applicable to correctly and consistently identify knowledge, and if the application of a given account of knowledge varies between subjects, then that account is therefore not universally applicable, which makes it faulty, and thus it cannot be accepted as the definition of knowledge. Therefore, justification cannot be based on falsehood, and the response to this final opponent is complete. These final arguments thus solidify the objections to Gettier, and therefore complete the solution to the infamous Gettier problem.

IV. Conclusion

The justified true belief model was the accepted account of knowledge for over 2000 years. The publication of Gettier's paper appeared to offer counterexamples and thus successful objections to the model, which led to the philosophical consensus to be in favor of Gettier and in opposition to the justified true belief model. However, after more than 50 years of the new consensus, it has now been contended and shown that the justified true belief model is a legitimate, sufficient, and successful account of knowledge, just as it was once thought to be.