

A Lewisian Modal Response to Gettier's Problem

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Introduction

In analytic philosophy, very few as minute papers have had as drastic and lasting an impact as Edmund Gettier's 1963 article, *Is Justified True Belief Knowledge?*. With a mere three-page canvas, Gettier attempted and appeared to have successfully dismantled what had long been regarded as the standard analysis of knowledge: that a subject S knows that P iff: (i) P is true, (ii) S believes that P, and (iii) S is justified in believing that P. Gettier proceeds to present cases in which a subject possesses a belief that is true and well-justified, yet intuitively lacks knowledge. Following the trivialization of this seminal work, the general consensus has been to conclude that the tripartite account has in fact been insufficient.

The decades succeeding Gettier have produced an extraordinary range of responses to his rather bold claim. Some philosophers have added further conditions, such as a “no false lemma” clause, others have appealed to causal connections between fact and belief, to reliability of belief-forming processes, to sensitivity and safety conditions, or to intellectual virtue. Despite their diversity, these responses share an almost common attempt to capture the intuition that knowledge excludes, or at least must exclude, luck. What Gettier cases reveal, it is often said, is that knowledge cannot be accidentally true, as is the case with his examples. This paper, nevertheless, argues for a different diagnosis. Gettier cases do not demonstrate that the tripartite analysis is structurally incorrect. Rather, these seemingly peculiar cases expose a misinterpretation of the truth condition within that analysis. The problem is not that justified true belief fails to capture knowledge, but that the notion of “truth” has been evaluated too narrowly. If truth is understood merely as truth in the actual world—meaning, the world we inhabit—then Gettier cases would indeed prove the insufficiency of JTB. However, if epistemic truth is interpreted modally—as in, relative to the range of nearby possible and epistemically relevant

worlds compatible with and preserving the agent's justification—then the Gettier intuition can be explained without abandoning the tripartite framework. The central claim of this paper is that knowledge requires a condition I would pertain to as modal robustness. That is to say, a belief must not only be true and justified, but true in a way that remains stable across nearby epistemically relevant possible worlds in which the justificatory basis of the belief is preserved. I argue that Gettier cases fail not because justification and truth are insufficient conditions for knowledge, but because the truth in the cases Gettier presented is modally fragile. This means that the belief is correct in the actual world only due to a coincidental alignment between the world and the content of the belief; across most nearby worlds where the subject's evidence and reasoning remain the same, the belief would be false. The truth is therefore accidental relative to the justification and the actual world. To articulate this idea more precisely, I will draw on David Lewis' possible-world semantics. Lewis' framework provides a structured account of similarity between worlds and of counterfactual dependence. In ordinary epistemic practice, we already evaluate beliefs counterfactually. We intuitively deny knowledge in cases of stopped clocks, fake barns, and lucky guesses because the belief could easily have been false under slightly different but normal circumstances. Such judgments implicitly appeal to a similarity ordering over possibilities. By making this structure explicit, I intend on formulating a modal condition on knowledge that captures the anti-luck intuition without introducing ad hoc additions to the tripartite analysis. This paper will follow this chronology: First, I will touch on the Classic Tripartite Analysis and restate Gettier's Challenge. Second, I shall explain how this problem can be approached by a Lewisian modal framework, incorporating David Lewis' possible world semantics. Third, I shall present my diagnosis of Gettier's Case 1. This is to be followed by my proposal of a modal condition for knowledge. On this proposed view, a subject S knows P iff: (i)

P is true in w_0 , (ii) S believes P in w_0 , (iii) S is justified in believing P in w_0 , and (iv) P remains true in nearby epistemically relevant possible worlds w that preserve the justificatory basis of S's belief. This final clause is not an unnecessary add-on, but a clarification of what it means for a belief's truth to be epistemically adequate. Knowledge is not mere factual correctness in the actual world, but must be a non-accidental accuracy relative to one's reasons for believing. Lastly, I shall briefly address possible objections and reiterate the central claim of this paper.

Reinterpreting Gettier's first case through this applied modal lens will be an attempt to reveal that Smith's belief is true in the actual world but false in the overwhelming majority of nearby worlds where his encounter with Jones is unchanged or only slightly tweaked. The justification tracks one fact, while the truth depends on another. The belief is therefore true only at an isolated point in modal space. This fragility explains our reluctance to attribute knowledge without requiring us to reject JTB altogether. The aim of this paper is thus not to replace the traditional account of knowledge, but to show that its apparent failure arises from an overly narrow reading of its truth condition. By integrating Lewisian modal semantics into the evaluation of epistemic success, I intend to preserve the tripartite structure while providing an explanation of Gettier cases. Knowledge, in this view, is justified true belief whose truth is modally robust.

The Classical Tripartite Analysis and Gettier's Problem

The traditional, widely-used account of knowledge states that:

S knows that P IFF:

(i) P is true,

- (ii) S believes that P, and
- (iii) S is justified in believing that P.

Gettier recognizes the credibility of these conditions but later attempts to prove that even the longest-existing account of knowledge is insufficient and fallible, through his infamous Gettier Cases. Gettier's first case features an agent he calls Smith, who has strong evidence that his fellow applicant Jones is chosen by the president of a company they are both applying for as the more viable candidate. Smith is also made aware, by his own verifying, that this man Jones has ten coins in his pocket. He then forms the following belief *B*:

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

Unexpectedly, Smith—instead of Jones—turns out to be the one who gets the job and also happens to have ten coins in his pocket, unbeknownst to Smith himself. The belief *B* is therefore true, Smith believes it, and he is justified in believing it (as Gettier argues). Yet, it seems intuitively incorrect to say that Smith has knowledge of the proposition's truth. This has been known to have—at least to some extent—shaken the classical tripartite analysis. Here, we see that Smith's belief had checked out the three conditions rather very simply, mainly because—and this is what I would try to address—the truth may have been evaluated too thinly, that is to say, it has been defined as merely actual-world accuracy.

A Modal Analysis of Gettier Case 1: Counterfactuals and Epistemic Relevance

For David Lewis, possible worlds represent complete ways reality might have been, ordered by their similarity to the actual world. And so, counterfactual evaluation would depend on truth in the closest worlds where the most antecedent conditions hold true. Following this

logic, “nearby” worlds are deemed as having a closer resemblance to the actual world. For the purpose of clarity, I differentiate nearby worlds from epistemically relevant worlds. In this case, I label worlds that resemble the actual world and are relevant to the way the justified true belief was formed in the actual world, as epistemically relevant, therefore pertinent to determining a true proposition. Nearby possible worlds resemble the actual world more closely, and so truths are more likely to be consistent across these worlds. However, not all nearby worlds which are similar to the actual one contain the same justificatory sets through which a particular belief is formed. And so, for a world to be epistemically relevant, it must be a nearby world and contain the same justificatory set of propositions through which a particular belief has been formed in the actual world. I must clarify that epistemic relevance may also come in degrees. Farther possible worlds, I deem with less epistemic relevance. Hence, knowledge and truth would depend on what happens in close alternative situations, provided that these worlds are epistemically relevant as defined by the conditions stated above. Nearby worlds which differ in justificatory sets can be said as having supplementary epistemic relevance.

A proposition known by agent S must then be true across the epistemically relevant regions determined by S’s justification. In Gettier’s case, Smith’s justifications for believing that “the man who will get the job has ten coins in his pocket” are:

- (1) Smith was told by the president of the company that Jones will get the job;
- (2) Smith has verified that Jones has ten coins in his pocket.

It is important to note that, referentially speaking, Smith was strictly pertaining to Jones in the prior description. That is to say, Smith had Jones in mind and not himself. Now, I use David Lewis’ theory of causal dependence to tie Smith’s justifications to Jones. For Lewis, an

event e causally depends on c , such that: if c had not occurred, e would not have occurred either.

And so:

(i) Smith would not have thought of (1) if he had been told that he would get the job;

(ii) Smith would not have thought of (2) if he had not checked Jones' pocket for coins.

None of these justifications tie the statement "the man who will get the job has ten coins in his pocket" to Smith, whom, towards the end, we find to be the man the phrase would refer to. I contend that the justificatory basis of Smith's proposition rests on facts about Jones, and therefore undermines the notion that the proposition will ever be about Smith (if not for epistemic luck) across nearby, epistemically relevant possible worlds. It is likely the case that, at least in these epistemically relevant possible worlds containing the same justificatory set through which Smith had arrived at his belief, said belief would be false.

The requirement then is not that knowledge be true and identical across all possible worlds, but at least in those worlds compatible with the justificatory basis of the belief. In this case, Smith's justification points to Jones getting the job. Smith has zero justification for believing that he will get the job, because (a) he was told otherwise, and (b) he is unaware of the ten coins in his pocket during the instance that the belief was formed. And so, epistemically relevant possible worlds are nearby worlds where the justifications (1) Smith was told Jones was going to get the job and (2) Smith had checked that Jones has ten coins in his pocket, stand. Circling back to causal dependence: If Smith had been told otherwise, meaning, that he would get the job, and he had not seen the coins in Jones' pocket, he would not have been able to form the belief that "the man who will get the job has ten coins in his pocket". With this, even if Smith

(instead of Jones) does get the job in the end, no “Gettier belief” would have been formed. This demonstrates that the central belief in Gettier’s Case 1 lacks modal robustness in the first place.

Proposed Modal Conditions for Knowledge

I now propose a set of conditions, which I shall call The Modal Robustness Conditions for Knowledge. From what has been argued by far, we may therefore refine the truth conditions with respect to JTB, as follows:

A belief B is true knowledge IFF:

- (i) B is justified;
- (ii) B is true in the actual world, and;
- (iii) B is true in nearby epistemically relevant possible worlds where the justification is preserved.

Modal robustness is particularly highlighted in condition (iii). Knowledge would then require that a proposition’s truth not be accidental relative to its justificatory basis. This account preserves the tripartite conditions while adding a clarificatory element to the truth condition; that is, a proposition must be true across epistemically relevant possible worlds where a set of justifications remain the same.

These conditions may more clearly be stated as:

Let J be S’s justificatory basis for believing P in world w_0 . Let $\text{Close}(w_0, w)$ be nearby worlds, and $\text{Rel}(w)$ be worlds preserving J. Therefore;

S knows P in w_0 iff P is true in w_0 and true in most w such that $\text{Close}(w_0, w)$ and $\text{Rel}(w)$.

In this structure, w_0 is the actual world. $Close(w_0, w)$ are nearby worlds similar to the actual one, which only considers the more realistic, ordinary alternatives relatively consistent with how the actual world behaves. This would limit the worlds we include for evaluation (only those with the same laws of nature, roughly the same mechanisms, etc.). $Rel(w)$ are epistemically relevant possible worlds, preserving a particular justificatory set that had led to the formation of a belief in the actual world. Agent S may then consider a proposition knowledge if it is true in the actual world and remains true in nearby epistemically relevant worlds containing realistic situations where S formed the belief under the same justificatory bases.

In Gettier's case, Smith's belief B (*the man who will get the job has ten coins in his pocket*) is true in the actual world, but could be easily false in nearby worlds where his evidence and justification are preserved. For instance, we examine w_1 where his set of justifications J remain:

- (1) Smith was told by the president of the company that Jones will get the job, and;
- (2) Smith has verified that Jones has ten coins in his pocket,

but the conditions are slightly different, such that:

- (1) Jones has ten coins (same as Gettier);
- (2) The president of the company said that Jones would get the job (same as Gettier);
- (3) Belief B is formed (same as Gettier), and;
- (4) Jones gets the job (different from Gettier; a slight deviation owing to possible worlds).

We then deduce that in w_1 , the proposition remains true. I would even argue that this is in fact the more appropriate execution of the example, seeing as Smith was indeed referring to

Jones at the time the belief was formed. In any case, I proceed to w_2 , where his set of justifications J remain, but the conditions are slightly different, such that:

- (1) Jones has ten coins (same as Gettier);
- (2) The president of the company said that Jones would get the job (same as Gettier);
- (3) Belief B is formed (same as Gettier), and;
- (4) Jones gets the job, but out of nervous fidgeting, drops one coin from his pocket shortly before his interview (different from Gettier; a slight deviation owing to possible worlds).

The proposition now becomes false; the man who will get the job has nine coins in his pocket, not ten. I proceed to w_3 , where his set of justifications J remain, but the conditions are slightly different, such that:

- (1) Jones has ten coins (same as Gettier);
- (2) The president of the company said that Jones would get the job (same as Gettier):
- (3) Belief B is formed (same as Gettier), and;
- (4) Jones gets the job, but at the cafeteria where he decides to treat Smith to a celebratory meal, they realize that two of the coins aren't actually coins, but are extra buttons that came with his new pair of pants that he specifically bought for his interview (different from Gettier; a slight deviation owing to possible worlds).

The proposition now becomes false; the man who will get the job has eight coins and two buttons in his pocket, not ten coins.

I must reiterate that Gettier's example more so shows a lack of modal robustness, rather than reveal an inherent flaw in JTB. Smith's beliefs satisfies JTB on the surface, but fails on the condition of modal stability. That is to say, its truthmaker floats free from the justification.

Smith's belief lands on truth in w_0 the same way that a stopped clock shows the right time twice a day. With this, I attempt to reframe Gettier's Case 1, such that it will contain a modally robust proposition.

In the same job interview situation, suppose that Smith, coming in after Jones, is told by the company president, "You are more qualified than Mr. Jones. You'll be hearing good news from us sooner than later". He then thanks the president, goes out of the interview room, puts his hands in his pockets and proceeds to walk. Upon feeling some coins, he takes them out, counts them, and puts them back. There were ten, and so he formed the belief "*The man who will get the job (me) has ten coins in his pocket*". A few moments later, he is called by HR with the promised job offer. The belief stands, with his justifications being that he had been told by the president that he is the more qualified candidate, and that he had counted ten coins in his pocket. We now evaluate nearby epistemically relevant possible worlds that preserve these justifications, but ordinarily vary such that:

In nearby world 1: Smith gets the call a little later in the day, but with the same news;

In nearby world 2: Smith gets interviewed *before* and not *after* Jones;

In nearby world 3: Smith is wearing navy blue slacks instead of black.

In these worlds, the proposition "*The man who will get the job (Smith) has ten coins in his pocket*" stands. It would only be false if the president was lying, or if Smith had miscounted the coins; but those would already break the justificatory set itself, which is a prior condition to epistemic relevance. We see, however, that in worlds that preserve the justification, the proposition will most likely remain true across several nearby worlds. This is because both the

justification and the truthmaker are grounded in Smith. And so, regardless of small deviations across nearby worlds, the belief stands robust.

Responses to Objections

I briefly address a few objections: first, a critic might say that this proposed account violates parsimony by introducing possible worlds into the analysis of knowledge. To this I say, modal considerations are already implicit in works following Gettier's work, evaluating beliefs in terms of how they would behave under counterfactual variation (safety, sensitivity, and reliability accounts). Far from violating parsimony, my proposed account presents a greater theoretical economy by explaining Gettier-style cases in terms of truth instability relative to justification across nearby worlds. My condition of "epistemic relevance" even tightens the vessel of what can only be considered as having pertinence to the belief-forming process, therefore eliminating the larger infinity of possible worlds.

Second, I anticipate questions having to do with access to possible worlds. Metaphysically speaking, we do not have access to possible worlds, regardless of how nearby or epistemically relevant they are. How then might we evaluate counterfactuals with respect to knowledge, if we do not have access to these possible worlds? The question itself is consistent with my response: modal robustness was never meant to be procedural, only explanatory. Just as agents form beliefs via the rules of logic, a belief may be assessed as modally robust without the agent physically surveying possible worlds. An agent assessing epistemic relevance must only be critical as to whether or not the same justificatory set stands in a particular possible world, and evaluate counterfactual circumstances from there. All other worlds may be eliminated or deemed with less or only supplementary epistemic relevance. In close relation to this, a question might be

raised of the relevance of counterfactuals at all, seeing as causation happens only within and not across possible worlds. I would go with the same response: the purpose of this is to provide semantics for explaining whether the actual causal-explanatory connection will remain stable across ordinary variations. This is to strengthen the truth condition of the JTB framework, and avoid having “truths” that can easily be falsified even under slightly different conditions. To reiterate, this entire account is an explanatory model for truth and counterfactual dependence, with the intention of reinforcing what it means for a proposition to be true. The relevance of counterfactuals does not come from interacting realities, but from the clarification that it brings having theorized what could easily have been in a nearby reality.

Third, I acknowledge that this entire discussion could be thought of as merely restating safety theories. I reply that safety theories usually evaluate whether a belief could easily have been false *simpliciter* at the level of method; my account is more fleshed out, indexing modal evaluation more particularly to the agent’s justificatory basis. The concern is not merely on possible worlds, but on epistemic relevance, justification-relative safety, and the modal space and inferential route effected by the agent himself via his justifications.

Conclusion

Ultimately, Gettier does not refute the Classical Tripartite Analysis. Rather, his cases demonstrate that the truth relevant to knowledge must be modal and not only purely actual. A belief counts as knowledge when it is justified and true in a way that remains stable across the nearby possibilities as foregrounded by its justification. Gettier's cases showcase a misrepresentation of the “truth” condition, as the seemingly justified true beliefs in both his cases already fail in terms of modal robustness.

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