Epistemic Failure: The Ghettier Situation  
by Milo Crimi

For some time, epistemologists have been engaged in the conceptual analysis of knowledge. This has led many to the view that propositional knowledge is, by definition, justified true belief that $p$ (where $p$ is a variable ranging over propositions). Some have shown support for what has been called the tripartite account of knowledge:

$$K-1: \quad s \text{ knows that } p \text{ if and only if:}$$

(i) $p$ is true (and)
(ii) $s$ believes that $p$ (and)
(iii) $s$ is justified in believing that $p$

(where $s$ is a variable ranging over agents).

It must be noted that $K-1$ is not the sole tripartite account. There are many subtly different versions. Common to all, however, is the inclusion of three conditions: (i) the truth-condition, (ii) the belief-condition, and (iii) the justification-condition. Accounts differ, most often, just in the articulation of these conditions. Thus, there is a more general formulation of the tripartite account of knowledge:

$$TAK: \quad s \text{ knows that } p \text{ if and only if:}$$

(i) The truth-condition is met (and)
(ii) The belief-condition is met (and)
(iii) The justification-condition is met

It has been claimed that the so-called Gettier problem proves the inadequacy of TAK (and, therefore, all instantiations of TAK). In his famous three-page article "Is Justified True Belief Knowledge?" Gettier claims that (i),
(ii), and (iii) of TAK, though perhaps necessary, are not jointly sufficient for s to know that p (where p is an empirical proposition). Gettier supports his claim by providing two counter-examples in which s has a justified true belief that p while it seems intuitively obvious that s lacks knowledge that p. Because the two counter-examples are essentially equivalent, just one shall be provided here:

\[ \text{GC}_{\text{EXISTENTIAL-SMITH}}: \]

Both Smith and Jones are applying for the same job. The president of the company has told Smith that Jones is the man who will get the job. Furthermore, Smith counted ten coins in Jones' pocket. Thus, Smith has a justified belief that Jones will get the job and Jones has ten coins in his pocket. From this, Smith validly infers (via existential generalization) that the man who will get the job has ten coins in his pocket. Smith, therefore, has justification for the proposition 'the man who will get the job has ten coins in his pocket'. However, the president of the company is a liar; it is actually Smith who will get the job. Moreover, Smith himself has ten coins in his pocket. The proposition 'the man who will get the job has ten coins in his pocket' is true. Thus, (i) p is true; and (ii) s believes that p; and (iii) s's belief that p is justified. However, it seems intuitively obvious that s does not know that p.

In the nearly fifty years since Gettier's counter-examples were published, a great many similar counter-examples (here referred to in general as Gettier cases) have been constructed. Lycan and Shope each provide
comprehensive histories of the development of Gettier cases and proposed solutions to the Gettier problem. Levi provides an interesting elaboration on Gettier's examples in which Gettier's agents are more realistically rendered. Also, for a less artificial Gettier case see Coder. Gettier's own examples were only the first generation of a long line of more and more hostile cases. For every proposed solution, another Gettier case would pop up, to the point where, to quote Lycan, "the adversarial method had gotten out of hand . . . people had begun flinging elaborate counterexamples only to be clever and to score points, with no thought for the larger picture or for positive understanding" (148-9). This, it seems safe to say, is not a philosophically interesting approach to the problem.

Instead, the legitimacy of the Gettier problem itself might be called into question. This is not an orthodox strategy. The vast majority of Gettier-related work operates on the assumption that Gettier cases constitute genuine counter-examples to the tripartite account of knowledge. Often, philosophers attempt to deduce why this is so and whether or not the Gettier problem is avoidable in principle (Floridi; Zagzebski). A few others take the opposite course by first assuming that Gettier-agents are in fact knowers (just in a less-than-ideal way); they then try to demonstrate the cogency of such a position (Hetherington). These two opposing lines of argument--what can be called the anti- and pro-tripartite approaches to the Gettier problem respectively--come to something of an impasse. (Though Floridi, Zagzebski, and Hetherington each provide particularly interesting arguments related to this issue--and how the theory of
justification called ‘fallibilism’ plays into all this--those arguments shall not be exhibited here for lack of space.)
At best, anti-tripartite proponents can conclude if Gettier cases refute the tripartite account, then the Gettier problem is insoluble; i.e., if the Gettier problem is a problem, then it is an insoluble one. Pro-tripartite defenders can argue that if the tripartite account is maintained, then the Gettier problem can be explained away; i.e., if the Gettier problem is not a problem, then there is no Gettier problem. But the fundamental question is do Gettier cases refute the tripartite account or not; i.e. is the Gettier problem a problem?

In one sense, it is apparent that Gettier cases do not pose a problem for the tripartite account. If the tripartite account is taken to be an iron-clad definition of knowledge, then Gettier-agents are surely knowers, inasmuch as they meet the conditions set forth. Given that Gettier-agents meet those conditions, one can then attempt to describe why it seems that Gettier-agents are non-knowers. For example, they can be conceptualized as close to the boundary between knowing and not knowing--with, so to speak, both feet on the 'knowing' side but with an elbow crossing over into the 'not knowing' side. This is, in effect, the pro-tripartite position taken by Hetherington.

Others contend that Gettier cases pose a genuine threat to the tripartite account. This view assumes the variability of (at least this particular) conceptual analysis. Proponents of this view argue that the intuitive conclusion that Gettier-agents are non-knowers is sufficient to designate them as such; and thus, since the agents in question do in fact meet the conditions of the tripartite
account, the tripartite account is, somehow, flawed. The next step is to either search for an alternative conceptual scheme defining knowledge or to investigate some of the logical or practical complications that the Gettier problem poses. These practices largely coincide with, and are emblematic of, the anti-tripartite positions of Floridi and Zagzebski.

But neither side is able to prove, without begging the question, whether or not the tripartite account is in fact refuted by Gettier cases. One's stance on the issue becomes largely a matter of opinion—which is based on one's intuitive and often opaque grasp of the concept 'knowledge' and what it means for an agent to get "Gettiered." Hence, the impasse. In light of this, it is here proposed that the Gettier problem be referred to as the Gettier situation. This terminology, it is hoped, will add a touch of neutrality to the current inquiry.

A more profitable approach to the Gettier situation may be to investigate whether or not there are any flaws to be found in the arguments of Gettier and his followers. Note that this is neither a pro-tripartite nor an anti-tripartite approach. Even if it can be shown that Gettier's arguments are unsound, and though it would disprove this particular refutation of the tripartite account, the adequacy of the tripartite account would not be proven. Gettier wraps up his exposition of GC\textsubscript{EXISTENTIAL-SMITH} with the following:

\begin{quote}
In our example, then, all of the following are true: (i) (e) [i.e. the proposition ‘the man who will get the job has ten coins in his pocket’] is true, (ii) Smith believes that
\end{quote}
(e) is true, and (iii) Smith is justified in believing that (e) is true. But it is equally clear that Smith does not know that (e) is true; for (e) is true in virtue of the number of coins in Smith’s pocket, while Smith does not know how many coins are in Smith’s pocket, and bases his belief in (e) on a count of the coins in Jones’s pocket, whom he falsely believes to be the man who will get the job. (122)

The above is, upon analysis, a somewhat convoluted commentary on GC_{EXISTENTIAL-SMITH}. Indeed, (i), (ii), and (iii) of the above quote are true; i.e., it is true that $p$ is true; it is true that $s$ believes that $p$; and it is true that $s$ is justified in believing that $p$. Thus, all three conditions of TAK hold. Note that the reader of the example can assert this because she has information about the circumstances which the agent in the example lacks. Gettier goes on to say that “Smith does not know that $[p]$ is true.” Gettier claims that his examples show that $s$ does not know that $p$, but what he actually says is that $s$ does not know that $p$ is true. He maintains that $s$ does not know that $p$ is true because “[p] is true in virtue of the number of coins in Smith’s pocket, while Smith does not know how many coins are in Smith’s pocket.” Now, the truth-maker for $p$ is that the man who will get the job has ten coins in his pocket; and, because Smith is the man who will get the job, the fact that Smith has ten coins in his pocket is also a truth-maker for $p$. But, Gettier argues, Smith does not know that the truth-maker obtains (because he has no idea how many coins are in his pocket and he does not know that he will get the job); therefore, Smith does not know that $p$ is true.
But there may be a difference between an agent's knowing that \( p \) and her knowing that \( p \) is true. Indeed, if \( p \) is replaced by '\( p \) is true' in K-1, different, albeit similar, conditions are obtained:

K-2: \( s \) knows that '\( p \) is true' if and only if:

(i) \( 'p \) is true' is true (and)
(ii) \( s \) believes that '\( p \) is true' (and)
(iii) \( s \) is justified in believing that '\( p \) is true'

Looking back on GC\textsubscript{EXISTENTIAL-SMITH}, it turns out that (i) of K-2 is almost certainly met. Furthermore, it seems reasonable to assume that (ii) is also met—though maybe \( s \)'s belief that '\( p \) is true' is just an implicitly held belief. However, it is not so clear that (iii) is met. Indeed, this seems to be what Gettier is getting at when he says that Smith does not know that '\( p \) is true' because his belief that \( p \) is based on (i.e. justified by) a count of the coins in Jones' pocket.

It must be recognized that epistemology is a philosophical province especially vulnerable to what have been called level-confusions. The precise articulation of what it means to speak of a philosophical "level" is quite difficult. Such talk is intimately associated with the notion of infinite regress; and it is perhaps best explained by way of example. One such example comes from the discussion of linear causal relationships. Imagine an event A that is caused by an event B which is caused by an event C. One could distinguish between A, B, and C by referring to each event as a separate level. Often, depending on what is being discussed, this level-chain
stretches on into infinity. A level-confusion may come about by postulating that what is true of one level is, ipso facto, true of some other "higher" or "lower" level. So, for example, one may be making a level confusion in asserting 'B is good, so, because B caused A, A is good too'. Alston, in his article, "Level-Confusions in Epistemology", attempts to clear up some of the level-confusions which, he argues, are present in many epistemological inquiries. His main focus is on the fact that iteration and combination of epistemic operators (such as 'knows', 'believes', 'is justified') is often present in epistemological research. For example, the operator 'knows' in the proposition 's knows that p' can be iterated to form the proposition 's knows that s knows that p'; and the operator 'believes' can then be combined with this latter proposition to form 's believes that s knows that s knows that p'. But while Alston's concentration is on the three operators 'knows', 'believes', and 'is justified in believing', the operator 'is true' also falls into the camp of epistemic operators capable of iteration and combination. Thus, the proposition 'p is true' can become 'p is true is true'; this, in turn, can become 's is justified in believing that p is true is true'.

It may be argued that, because 'is true' refers just to propositions, and not to knowers (like 'believes' etc. do), 'is true' is not an epistemic operator per se. However, it cannot be denied that 'is true' appears in epistemological discourse. It appears, after all, in one of the conditions of the infamous tripartite account of knowledge itself. Nevertheless, the truth-operator (as 'is true' shall here be
named) is often assumed to behave unlike the other epistemic operators when faced with iteration. In fact, any given proposition $p$ is usually assumed to have an implicit 'is true' operator attached, such that $p$ really asserts '$p$ is true', which asserts '$p$ is true is true', which asserts '$p$ is true is true is true' and so on. What is of special interest here is how the truth-operator behaves in certain epistemic conditions—specifically, those regarding the use of epistemic operators—and the combination of these with iterations of the truth-operator—to form propositions of the form 's knows that $p$ is true' or 's is justified in believing that $p$ is true is true'. What must be discerned is whether or not iterations of the truth operator in epistemic propositions alter the truth-values of those propositions.

Tarski's semantic conception of truth may shed some light on the current inquiry. Tarski says, "The truth of a sentence consists in its agreement with (or correspondence to) reality" (343). Tarski's schema-$T$ states that "The sentence "snow is white" is true if, and only if, snow is white" (Ibid.)—or, more generally:

$$T: \quad \text{'}p\text{' is true if and only if:}$$

(i) $p$

(where 'p' designates a name for $p$)

In adopting Tarski's semantic conception of truth, a distinction must be made between two types of propositions; sc., those in the object language and those in a meta-language. For example, the proposition

$p_o$: The moon is made of green cheese

is in the object language, while the proposition

$p_m$: 'The moon is made of green cheese' is true
is in a meta-language. The former, when empirical, refer to phenomena. The latter refer to propositions about phenomena. An alternative way of describing $p_M$ would be

$p_M': 'p_0' is true$

What T asserts is that there is a relationship of material equivalence between $p_0$ and $p_M$. Note that this result holds regardless of the number of consecutive iterations of the truth operator. For any object-language proposition, there is, not only its first-level meta-language proposition referring to it, but also its second, third, and so on. These meta-language propositions could be written in such a way that each is given a numerical subscript corresponding to the level which the proposition "occupies". So, for example,

$p_1$: $p_0$
$p_2$: '$p_0' is true $=_{df} p_M$
$p_3$: '$p_0$ is true' is true $=_{df} 'p_M'$ is true

(Where '$x =_{df} y'$ means 'x is identical by definition to y')

The set of propositions obtained through repeated application of the truth-operator to an object-level proposition would then be the countably-infinite set

$P: \{ p_1, p_2, p_3, \ldots \}$

(A countably-infinite set is an infinite set that can be placed in a 1-1 correspondence with the set of natural numbers.)

If it is granted that object-level propositions and their corresponding meta-level propositions are materially equivalent, then all members of $P$ are materially
equivalent. (This can be proven quite easily by running a mathematical induction on the members of P.) This is not to say, however, that all members of P are identical. It may be that the so-called Leibniz’ Laws of identity do not apply to members of P; i.e., it may not be the case that any given member of P can be substituted for any other member of P in any given proposition. So, the fact that all members of P are materially equivalent does not entail SP-2.

If Gettier’s argument is interpreted in such a way that his examples demonstrate just that s does not know the proposition ‘p is true’, and it is then inferred from this that s does not know that p, then his argument includes the suppressed premise,

SP-1: If not (s knows that $p_0$), then not (s knows that $p_0$)

which is equivalent to

SP-2: If s knows that $p_0$, then s knows that $p_M$

The argument then proceeds to show that s does not know that $p_M$. From this it is concluded (via Modus Tollens) that s does not know that $p_0$. In other words, Gettier’s argument has the following form:

GA-1:

(i) If s knows that $p_0$, then s knows that $p_M$
   (by hypothesis)
(ii) Not (s knows that $p_M$)
    (by example)
(iii) Not (s knows that $p_0$)
    (conclusion)
But unless (i) of GA-1 is supported, the argument as a whole is unsound. The only legitimate conclusion that GA-1 can generate is 'if (i), then (iii)'. In sum, if Gettier is interpreted in such a way, then, in order for his Gettier cases to constitute refutations to the tripartite account of knowledge (which merely states necessary and sufficient conditions for an agent’s knowing that \( p_o \)-not for her knowing that \( p_m \)), SP-2 must be proven; i.e it must be shown that if \( s \) knows that \( p \), then \( s \) knows that '\( p \) is true'. Indeed, there is a prima facie case for SP-2. In standard extensional propositional logic, two materially equivalent propositions can be substituted for one another in a larger proposition. In intensional logics, however, this does not always hold. It is a point of interest to note that the vast majority of epistemic logics are in fact intensional. So, for example, it can be that the formula

\[ p_o \text{ if and only if } p_m \]

holds, while the formula

\[ k(p_o) \text{ if and only if } k(p_m) \]

(where ‘\( k(x) \)’ means ‘\( s \) knows that \( x \)’)

does not hold.
**Works Cited**


