

THE GETTIER PROBLEM

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In Plato's *Theaetetus*, we are asked to consider the difference between *knowledge* and *mere opinion*. Knowledge, we learn, must be about something that is true. While you might have a false *opinion*, you cannot be said to properly *know* something when it's false. And drawing from imagery in the *Meno*, we might add that knowledge is "tied down" in a way that a mere opinion is not—if you know that *p* then you have reason or justification for believing *p*. Mere opinions are fragile in a way that knowledge is not. Mere opinions might be swayed via rhetoric or persuasion. Knowledge, it's thought, is gained via education and is far less fragile. In sum, then, mere opinions are beliefs that are supported by little or at least insufficient justification and may or may not be true. And knowledge, in contrast, is a belief that is true and sufficiently justified. Belief, sufficient justification, and truth were considered, since time immemorial (or so the story goes), to be necessary conditions on knowledge.

In his seminal 1963 article, "Is Justified True Belief Knowledge?" Edmund Gettier argued that, while justification, truth, and belief may be *necessary* for knowledge, such conditions are not (when taken together) *sufficient* for knowledge. In other words, Gettier argued that a belief could be justified and true and yet fail to be an instance of knowledge.

CLASSIC CASE: Smith and Jones are applying for the same job. Smith has very strong evidence for thinking that Jones will get the job (e.g., the employer tells Smith that he will hire Jones, etc.), and for thinking that Jones has 10 coins in his pocket (e.g., Jones emptied his pockets in front of Smith and then clearly, slowly, in good lighting, and perhaps even counting out loud, placed 10 coins in his pocket). As such, Smith forms a belief in the general proposition that "the man who gets the job has 10 coins in his pocket." As it turns out, however, Smith gets the job and he happens to also have 10 coins in his pocket. (paraphrased from Gettier, 1963, p. 122)

In this case, Smith seemingly has a justified true belief that "the man who gets the job has 10 coins in his pocket," but, as almost everyone agrees, surely Smith's belief is not knowledge.¹ Again, while justification, truth, and belief might be *necessary* for belief, such conditions do not seem to be jointly *sufficient* for knowledge.

The project of trying to define knowledge in terms of necessary and jointly sufficient conditions—conditions that are assumed to be to be conceptually more primitive than the concept of knowledge—is what I’ll call in this chapter *the reductive analysis project*.² And the specific reductive analysis in terms of justification, truth, and belief is sometimes called *the traditional analysis of knowledge* or *the tripartite analysis of knowledge*.

For philosophers who were interested in giving a reductive analysis of knowledge, Gettier’s counterexamples posed a serious problem. As such, epistemologists quickly tried to find ways to save or repair the traditional analysis of knowledge—typically by trying either to strengthen the justification condition or by adding more conditions (i.e., justified true belief plus some fourth condition). What ensued was a wide array of theories of justification (e.g., justification as evidence, justification as reliability, internalist justification, externalist justification, etc.) and additional conditions on knowledge (e.g., safety conditions, sensitivity conditions, defeasibility conditions, etc.). All of this sought to understand knowledge via reductive analysis, all of which assumed something like a *warranted true belief* analysis of knowledge (where “warrant” stands for “whatever turns true belief into knowledge”). Unfortunately, none of these proposals (in any combination) seemed to achieve lasting success against Gettier counterexamples—either falling into further Gettier-style counterexamples or leading to unpalatable conclusions (such as radical skepticism). After over 50 years of proposed solutions being met with serious challenges, a viable reductive analysis of knowledge, it might seem, is a Sisyphean endeavor.

At heart of the problem posed by Gettier is the incompatibility of a certain species of epistemic luck with knowledge. Consider again the CLASSIC CASE above: The truth of the target belief is incredibly *lucky*, given the way was formed, and as such that belief is precluded from being rightly called knowledge. Epistemic luck, at least of a certain sort, seems to be incompatible with knowledge. And almost every proposed solution to the Gettier Problem has tried to develop a viable analysis of knowledge that is immune to that kind of epistemic luck. *In this chapter, we will explore the luck at issue in Gettier-styled counterexamples and the subsequent problem it poses to any viable reductive analysis of knowledge.* In §1, we will consider the specific species of luck that is at issue in Gettier counterexamples, then, in §2, I will briefly sketch a diagnosis of the Gettier Problem and try to explain why the relevant species of luck has proven to be extremely difficult to avoid. And finally, in §3, I will consider a prominent objection to the proposed diagnosis of the Problem.

§1: Understanding the Luck at Issue in Gettier Counterexamples

As Duncan Pritchard noted in his seminal book, *Epistemic Luck* (2005), there seemed to be a near universal intuition within the contemporary epistemological literature “that knowledge excludes luck”—what he calls the “epistemic luck platitude”—however, as Pritchard is quick to point out, we have to be careful here; not all instances of luck preclude knowledge (2005, p. 1). In this section, we’re going to briefly elucidate the different kinds of epistemic luck identified by Pritchard so as to better understand the specific kind of luck at issue in Gettier cases.³ Once we know what kind of luck plays a role in Gettier cases, we will hopefully be better positioned to diagnose the Gettier Problem.⁴

Let’s start by considering the kind of luck that’s not at issue in Gettier counterexamples by considering some species of luck that are epistemically benign, that do not preclude knowledge. Although it is almost universally agreed that the lesson to be learned from Gettier cases is that knowledge is incompatible with luck—that luck is the central and fundamental component of all Gettier cases—Pritchard goes on to show that there are at least four species of epistemic luck that do not preclude knowledge. The first of these is:

Content Epistemic Luck: It is lucky that the proposition is true. (Pritchard, 2005, p. 134)

For example, Eli is walking down Placid Lane, a calm suburban road, and sees a car crash into a tree. To be sure, there are hardly ever car accidents on Placid Lane. It may be a matter of luck that a given car accident occurred; this, however, does not prevent agents from knowing that it occurred. Eli’s belief that the accident occurred is warranted and only luckily true, but the luck at issue is epistemically inconsequential.

Pritchard identifies the second species of benign luck as:

Capacity Epistemic Luck: It is lucky that the agent is capable of knowledge. (Pritchard, 2005, p. 134)

If it is somehow lucky that a given agent has the capacity to know a given belief, this does not prevent that agent from knowing it. Using Pritchard’s example, say Jones is walking through the forest and only narrowly avoids being smacked in the face with a branch that would have blinded him (perhaps he bent down to tie his shoe right when the branch swung by); it is, therefore, lucky that Jones has the capacity to see, but this luck does not thwart Jones’s future perceptual beliefs from being known (Pritchard, 2005, p. 135).

The third species of benign epistemic luck that Pritchard identifies is called:

Evidential Epistemic Luck: It is lucky that the agent acquires the evidence that she has in favour of her belief. (Pritchard, 2005, p. 136)

Smith just so happens to walk by his employer's door and overhear that he is going to be fired, which, let us say, is true. It is, then, a matter of luck that Smith has the evidence that he has in favor of his belief that "I am going to be fired," but such luck does not preclude Smith from knowing such a belief.⁵

Finally, the fourth species of benign epistemic luck that Pritchard identifies is:

Doxastic Epistemic Luck: It is lucky that the agent believes the proposition. (Pritchard, 2005, p. 138)

Not only is it lucky that Smith overhears that he is going to be fired when he just so happens to walk by his employer's door, it is also lucky that he forms the belief that he is going to be fired. He would not have formed the belief that he is going to be fired in relevant nearby possible worlds. As Pritchard notes, it does not look like a given event can exhibit Evidential Epistemic Luck without exhibiting Doxastic Epistemic Luck and vice versa, at least not without being contentious.⁶ As with Evidential Epistemic Luck, Doxastic Epistemic Luck too seems epistemically benign—Smith can know he is going to be fired even if he exhibits Doxastic Epistemic Luck.

Gettier cases, according to Duncan Pritchard and many others, are caused by a specific species of luck (see Pritchard, 2005, pp. 145–148). As such, the lesson to be learned from Gettier cases is not so much that knowledge is incompatible with luck *simpliciter*, but rather that knowledge is incompatible with a particular *species* of it. By these lights, any successful analysis of knowledge, therefore, must (at the very least) track knowledge ascriptions in accord with this species' absence. Pritchard calls this species of luck that is behind Gettier cases "Veritic Epistemic Luck." According to Pritchard, a given agent's belief exhibits Veritic Epistemic Luck when the following description is met:

Veritic Epistemic Luck: It is a matter of luck that the agent's belief is true. (Pritchard, 2005, p. 146)

To be sure, Veritic Epistemic Luck is *not* meant to refer to cases where it is a matter of luck that *the propositional content* of an agent's belief is true. Certainly, such luck *is* compatible with knowledge; for example, we can have knowledge of who won the lottery, where lightning struck, what number rolling a die produced, etc. Pritchard goes on to elucidate what Veritic Epistemic Luck demands, namely, that

the agent's belief is true in the actual world, but that in a wide class of nearby possible worlds in which the relevant initial conditions are the same as the actual world—and this will mean, in the basic case that the agent at the very least *forms the same belief in the same way* as in the actual world—the belief is false. (Pritchard, 2005, p. 146 - emphasis mine)

So in order for something to be an instance of Veritic Epistemic Luck, not only does it have to be a matter of luck that the agent's belief is true, but it has to be lucky *given the way it was formed*.

There are, to be sure, two sub-species of veritic epistemic luck, *environmental luck* and *intervening luck*, and only the latter is considered to be relevant to Gettier counterexamples. A classic example of environmental luck found in the fake barn case:

FAKE BARNS: Henry is driving in the country with his son. For the boy's edification Henry identifies various objects on the landscape as they come into view. "That's a cow," says Henry, "That's a tractor," "That's a silo," "That's a barn," etc. Henry has no doubt about the identity of these objects; in particular, he has no doubt that the last-mentioned object is a barn, which indeed it is. Each of the identified objects has features characteristic of its type. Moreover, each object is fully in view, Henry has excellent eyesight, and he has enough time to look at them reasonably carefully, since there is little traffic to distract him. . . . Suppose we are told that, unknown to Henry, the district he has just entered is full of papier-mâché facsimiles of barns. These facsimiles look from the road exactly like barns, but are really just façades, without back walls or interiors, quite incapable of being used as barns. They are so cleverly constructed that travelers invariably mistake them for barns. Having just entered this district, Henry has not encountered any facsimiles; the object he sees is a genuine barn. But if the barn on that site were a facsimile, Henry would mistake it for a barn. (Goldman, 1976, pp. 772–773)⁷

In such a case, it's a matter of luck, given the way the belief was formed, that Henry's belief is true—satisfying my gloss of Pritchard's definition of veritic luck. And even though Henry saw a real barn and formed a true belief based off of that perception, he fails to know, because his reasons for thinking "that's a barn" are not sufficient in such an environment—where, by hypothesis, he is unable to distinguish real barns from fake barns. Given the environment, his reasons for thinking that "that's a barn" could have very easily lead to a false belief, if he just so happened to be looking at one of the facsimiles.⁸

Gettier cases are different. Recall the CLASSIC CASE from the beginning of this chapter. In such a case, it's a matter of luck, given the way the belief was formed, that Smith's belief is true—

satisfying the definition of veritic luck—because his reasons for thinking that “the man who gets the job has 10 coins in his pocket” do not rightly capture why the belief is true. *The protagonist in Gettier cases, is the victim of double luck.*⁹ Due to some bad luck, Smith’s reason for believing that “the man who gets the job has 10 coins in his pocket,” in the CLASSIC CASE, are significantly undermined: Smith heard from the employer that Jones is going to be hired and saw that Jones has 10 coins in his pocket, leading to the belief in question; however, Jones doesn’t get the job, undermining Smith’s belief. Thanks to some countervailing good luck, however, Smith’s belief turns out to be true *for other reasons*: unbeknownst to Smith, he gets the job, and he also has 10 coins in his pocket. The reasons for Smith’s belief are not insufficient due to an unfavorable environment (as in cases like FAKE BARNS). Smith’s reasons for his belief are insufficient because they are significantly undermined as a result of bad luck, and would have led to a false belief if it hadn’t of been for the countervailing or intervening luck making Smith’s belief true for significantly different reasons. This sub-species of veritic luck, which Pritchard calls *intervening luck*, is the luck involved in Gettier cases.

The Gettier Problem isn’t simply the problem of developing a viable analysis of knowledge that precludes luck. Some types of luck are epistemically benign. The Gettier Problem, as we’re discovering, is the problem of developing a viable analysis of knowledge that precludes luck that, roughly speaking, comes between the reasons for a given belief and the truth of that belief. More precisely, the Gettier Problem is the problem of developing a viable analysis of knowledge that precludes a sub-species of veritic luck, *intervening luck*: luck where a given belief is true but for reasons not captured by the given agent’s reasons. And already, I think, we can begin to see why the Gettier Problem has been so resilient for over 50 years. Based on our understanding of intervening luck in this section, we might predict that a given theory of warrant cannot avoid Gettier counterexamples unless it guarantees the truth of the belief in question, because otherwise the belief might be true for reasons not captured by the warrant which would “Gettierize” the belief. But given that the warrant we have for our beliefs rarely, if ever, guarantee our beliefs’ truth, we might worry that any theory of warrant that makes such a requirement will only lead us to radical skepticism. We might already see the worry that no reductive analysis of knowledge can viably solve the Gettier Problem, that the Gettier Problem might be inescapable.

§2: A Diagnosis of The Problem

As noted at the beginning of this chapter, recent history has shown us that it is notoriously difficult to develop a viable reductive analysis of knowledge in terms of necessary and jointly sufficient conditions that can avoid Gettier counterexamples. It's extremely difficult to develop a theory of knowledge that isn't vulnerable to intervening luck. And in response to this somber history, many epistemologists have started to avoid Gettier Problems altogether. Some have simply decided to talk about other epistemic goods—like justification, warrant, understanding, etc.—to avoid the whole Gettier Problem rigmarole.¹⁰ Others have simply put the problem on the shelf; developing reductive accounts of knowledge that simply include a caveat, “Gettier problems aside” or “barring Gettier counterexamples.”¹¹ And others still have given up on the reductive analysis project—the project of analyzing knowledge in terms of necessary and jointly sufficient conditions that are taken to be conceptually primitive—opting, instead, to treat knowledge itself as an unanalyzable primitive.¹² But before we shift focus to other epistemic goods, or to non-reductive models, or before we put Gettier problems on the shelf, it is important for us to understand and diagnose why the Gettier Problem is so problematic. And that's the goal of this section.

According to Linda Zagzebski's article, “The Inescapability of Gettier Problems” (1994), she proposed a diagnosis of Gettier problems where, if whatever we take to bridge the gap between true belief and knowledge (i.e. warrant) bears some violable relationship to truth, then it will be possible for that belief to be so warranted and true for reasons unrelated to the warrant. That is to say, so long as we reasonably assume that warrant is neither divorced from truth nor inseparable from it, Gettier cases are “inescapable” . The worry, however, is that if we assume that warrant is indeed inseparable from truth, then we may never actually be in possession of such warrant.¹³ We might think then that the Gettier Problem has proven to be so very problematic because it faces a dilemma: either (i) assume that warrant bears a close but not inviolable relationship to truth and face Gettier counterexamples or (ii) assume that warrant bears an inviolable relationship to truth and risk skeptical conclusions. In this section, I will try to very briefly lend credence to such a diagnosis of the Gettier problem.

Again, taking “warrant” to be whatever bridges the gap between true belief and knowledge. The starting place that almost everyone seems to agree on is that if it is possible to have a warranted, false belief, then it is possible for such a belief to be so warranted and true for reasons not captured by the warrant. In other words, if we assume that warrant is fallible, then Gettier problems will be unavoidable.¹⁴ So, if we're going to try to avoid Gettier counterexamples, whatever bridges the gap between true belief and knowledge must be infallible.¹⁵

But what is perhaps less appreciated in the literature is just how strong this claim is. If a given account of warrant doesn't make it impossible for a belief to be so warranted and false, then that account of warrant cannot avoid Gettier counterexamples. For example, if a given account of warrant rules out the possibility of a warranted false belief in all *close* possible worlds—which is already a strong account of warrant—it can still be vulnerable to Gettier counterexamples, since it hasn't ruled out the possibility of a warranted false belief in *distant* possible worlds. A distant possible world could obtain, and the belief could be so warranted and true for other reasons. In other words, the belief could still be Gettiered.¹⁶ Continuing with the modal example, any truly infallible account of warrant aimed at avoiding Gettier counterexamples must preclude the possibility of a warranted false belief *in all possible worlds*. That said, if a given belief is warranted and if it is impossible for it to be so warranted and false, then there is a real worry that we might never have a warranted beliefs, and so never have knowledge. It looks like radical skepticism might be looming on the immediate horizon.

A possible worry: Some theories of warrant—for example, causal theories and achievement theories—seem to necessitate truth but without leading to radical skepticism. For example, consider the following account of knowledge: *S knows p iff S's belief that p is caused by the fact that p*. Here, it looks like truth is built *into* the account of knowledge such that it's not possible to have a warranted false belief, yet it is not obvious that it leads to skeptical conclusions. As such, the above diagnosis of the Gettier Problem seems incorrect; an account of warrant can entail truth without leading to skepticism.

A response: While such an account might *appear* to be infallibilistic about warrant, it's easy to see that such an account of knowledge is actually fallibilistic upon closer inspection. First of all, note that it's easy to generate a Gettier case against it. Consider the following:

SPRING: While visiting a local children's museum, S looks across a room to see what looks like a spring in a large box and forms the belief "There's a spring in that box!". What S sees, however, is mere hologram of a spring generated by a series of mirrors within the box, which reflect the actual spring, which (luckily) is elsewhere within the box. (Given the current setup, the hologram of the spring couldn't be there if the actual spring wasn't elsewhere in the box.)

S's belief that "There's a spring in that box" is caused by the fact that there is indeed a spring elsewhere in the box (being reflected by the mirrors). The aforementioned definition of knowledge seems to be satisfied, though the belief is Gettiered. Seeing the way in which such an account can be Gettiered helps us see that it employs a fallibilistic account of warrant. Critically for the proposed diagnosis of the Gettier Problem, we need to know the following: *if S knows p iff S's belief that p is caused by the fact*

that p, then what bridges the gap between the true belief and the knowledge? In other words, what is functioning as *warrant* in such an account of knowledge? Answer: It's the sort of causal relationship that stands between *p* and the corresponding belief. And what cases like SPRING show is that it's possible to be in *the very same sort of relationship* without having a true belief. The hologram of the spring—the very same causal source—could have, with a different configuration of mirrors, just as easily caused a false belief (if, for example, the actual spring wasn't in the box but was being reflected from somewhere else, perhaps the floorboards). Being false, such a belief is clearly not knowledge; however, the *warrant* seems to remain intact. As such, the theories of warrant, in such cases, are fallibilistic; and, as expected, they lead to Gettier counterexamples.

But what is more, the only way such an account could truly avoid Gettier counterexamples, is if it was impossible for a given causal relationship to lead to anything other than a true belief. If we assumed that *S knows p iff S's belief that p is caused by the fact that p*, and we assumed that any given cause had to guarantee the truth of *p* (the same sort of cause couldn't have produced a false belief), then Gettier problems can indeed be avoided. But now it looks like skepticism is looming on the horizon. Very few (if any) of our beliefs have causes that couldn't have possibly led to a false belief. And as such, it seems like such an account of knowledge, as predicted, is extremely difficult to satisfy. *So, the Gettier Problem leaves us with a dilemma. Either assume a fallibilistic account of warrant and face Gettier counterexamples or assume an infallibilistic account of warrant and risk radical, intractable skepticism. And insofar as neither leg of this dilemma is attractive, the Gettier Problem seems unsolvable.*

Let's put this a bit more formally. Let's start, again, with the widely agreed upon claim that fallibilist accounts of warrant will always face Gettier counterexamples:

- 1) If it is possible for a warranted belief to be false ($\Diamond(Wb \bullet \neg b)$), then it is possible for a belief to be so warranted and true for reasons not captured by the warrant.

Add to this, the strong intuition that Gettier cases are incompatible with knowledge, which effectively forces us to deny 1's consequent.

- 2) Knowledge precludes the possibility of warranted belief that is true for reasons not captured by the warrant. (i.e. Gettier cases are not instances of knowledge)

And by denying 1's consequent, we have to also deny it's antecedent via *modus tollens*, which is the denial of fallibilism:

3) It is not possible for a warranted belief to be false.

$(\neg\Diamond(Wb \bullet \neg b))$.

And that is logically equivalent to the following:

4) It's necessarily the case that: if a belief is warranted, then it is true ($\Box(Wb \rightarrow b)$).

Starting with the modest assumption that fallibilistic accounts of warrant will always be vulnerable to Gettier counterexamples (1) and the intuition that Gettier cases are incompatible with knowledge (2), we're straightforwardly lead to infallibilism (4). But if warrant sufficient for knowledge *necessarily* entails the truth of the given belief, then it is not clear that an infallibilistic account of warrant could ever be met; leaving infallibilism under the threat of radical skepticism.

In sum, then: the Gettier Problem is the problem of developing a reductive analysis of knowledge that viably precludes the intervening luck at work in Gettier counterexamples. At the start of this section, we set out to consider why the Gettier problem has proven to be so very problematic, seemingly evading a viable solution for over fifty years. Now, perhaps, we're in a better position to see why the Problem is so very problematic. Any viable reductive analysis of knowledge faces a dilemma between being vulnerable to Gettier counterexamples or risk collapsing into radical skepticism. In keeping with Zagzebski's (1994) diagnosis, the only way to avoid intervening luck, it seems, is to assume an infallible theory of warrant, to require a given theory of warrant to guarantee the truth of the belief in question, ruling out the possibility of the belief being true for reasons not captured by the warrant. Ruling out the possibility of intervening luck, however, seems to require a theory of warrant that guarantees the truth of the belief in question; and given that we rarely possess enough warrant to guarantee the truth of our beliefs, then we're left with the worry that we might not ever have enough warrant for knowledge, leaving us with skepticism.

There are, of course, a few ways to object to this diagnosis. One possibility that we've already very briefly considered is the possibility of rejecting the second horn of this dilemma, rejecting the idea that infallible theories of warrant will lead to skepticism.¹⁷ But there is another way to object to

the proposed diagnosis, and that's by rejecting the starting premise (and the first horn of the dilemma) that fallible theories of warrant are vulnerable to Gettier counterexamples. If it's possible to give a viable analysis of knowledge that avoids Gettier counterexamples without requiring an infallible theory of warrant, then we don't need to worry about whether infallibilism about warrant leads to skepticism. The proposed diagnosis would be dead in the water. This is the kind of objection we'll consider in the next section.

§3: An Objection

In their paper, "Infallibilism and Gettier's Legacy" (2003), Daniel Howard-Snyder, Frances Howard-Snyder, and Neil Feit consider what they call three nonpartisan arguments against fallibilism and contend that each is lacking. Most importantly for our purposes, however, they contend that an argument for infallibilism based on the sort of diagnosis of the Gettier Problem proposed in the previous section is simply flawed. Contra the proposed diagnosis, Howard-Snyder *et al.* argue that the Gettier Problem can indeed be solved fallibilistically, while assuming that warrant bears a close but not inviolable relationship to truth. In this section, we will briefly consider Howard-Snyder *et al.*'s opposition to the proposed diagnosis, and I will argue that Howard-Snyder *et al.*'s opposition fails—and does so precisely along the lines predicted by the proposed diagnosis of Gettier problems in the previous section.

According to Howard-Snyder *et al.*, the following (purportedly) fallibilism-friendly condition on warrant viably avoids Gettier counterexamples:

S's belief that *p* is warranted only if S's belief that *p* would not be accidentally true for S, if it were true. (D. Howard-Snyder, F. Howard-Snyder, and Feit 2003, 309)

"[T]he distinctive feature of standard Gettier cases," according to Howard-Snyder *et al.*, "is that the reason [S] believes *p* or the processes involved in his believing *p* are not properly related to those facts that render *p* true" (2003, p. 308). As such, what Howard-Snyder *et al.* have done is to convert their diagnosis of Gettier counterexamples into an anti-Gettier condition on warrant; interpreting this latter condition as simply demanding that "S's belief that *p*" will only be warranted if "the following subjunctive conditional is true: if S's belief that *p* were true, then it would also be true that what makes *p* true is properly related to the reasons for, or the processes involved in, S believing *p*" (Howard-Snyder *et al.*, 2003, p. 309). And, according to Howard-Snyder *et al.*, there is no reason to think that

this condition precludes the possibility of a warranted false belief; they have seemingly provided us with a fallibilism-friendly way to circumvent the Gettier Problem, without, so they would hold, sacrificing feasibility.

Ignoring the worry that such a condition is *ad hoc*, I want to argue that, based on two plausible readings of their condition, it runs into precisely the sort of dilemma predicted by the diagnosis of the Gettier Problem offered in the previous section. No matter how we understand Howard-Snyder *et al.*'s condition, it will either run into Gettier counterexamples or lead to radical skepticism through infallibilism.

The first plausible reading of Howard-Snyder *et al.*'s proposed condition of warrant is one where it prohibits luckily true beliefs, where the luck at issue is presumably veritic (in general) or intervening (in particular) epistemic luck. I think it is fairly clear that Howard-Snyder *et al.* could easily be conflating “X is lucky” with “X is accidental” such that when they prohibit accidentally true beliefs (or beliefs whose reasons are not properly related to the belief's truth), they are really prohibiting something like luckily true beliefs of the relevant sort. What is more, given their extrapolation of their account, it also seems fairly clear that when they prohibit accidentally true beliefs they are really prohibiting something very much like veritically lucky true beliefs as understood in §1 of this chapter.

In other words, it seems like Howard-Snyder *et al.* could easily be read as prohibiting beliefs that, given the way they were formed, are luckily true. Now, if this is right, the problems they run into are straightforward. Plausibly, almost every belief we hold is at least minutely (veritically) lucky, almost every belief we have could have been false given the way in which it was formed; as such, Howard-Snyder *et al.*'s only hope for avoiding Gettier counterexamples is to make their condition prohibit even marginally lucky beliefs; in so doing, however, they would likely be committing themselves to radical skepticism—seemingly, very few of even our most secure beliefs are completely luck-free. Given that an all-out ban on lucky beliefs would effectively make it impossible for a belief to be warranted and false, ironically, it seems as though the only way Howard-Snyder *et al.*'s condition, so understood, can *really* avoid Gettier counterexamples is if it commits to infallibilism.

But perhaps that's not the way to read Howard-Snyder *et al.*'s condition after all. Perhaps instead, when they prohibit accidentally true beliefs (i.e., beliefs whose reasons do not properly relate to the truth), they are prohibiting beliefs that are somehow true for the wrong reasons (whatever precisely that means)—beliefs that are true for reasons that *your* reasons, evidence, or cognitive processes would not have predicted. Surely this is precisely what is at issue in Gettier counterexamples, so perhaps *this* is the way to read their proposed condition on warrant. Sadly, however, this is going to run into similar

troubles as the previous reading. Surely being “true for the right reasons” or being “true for reasons my evidence would predict” is a matter of degree. And seemingly, the vast majority of our beliefs are, to at least some minute extent, going to be true for reasons we could not have predicted. For example, my secure belief that, as I am writing this, I am working at Hillsdale College is surely knowledge, but it is probably true, at least in part, for reasons my evidence does not account for—reasons like, such and such a form was filled out (which I had nothing to do with) making my employment at Hillsdale official, etc.

So surely Howard-Snyder *et al.* would not want to establish an all-out prohibition on beliefs that are not *entirely* true for the right reasons, reasons predicted by my evidence, because such a prohibition would seemingly push us toward radical skepticism. But unless Howard-Snyder *et al.* make such a prohibition, it looks as though Gettier counterexamples are going to be inevitable. Consider the following example:

The Horticulturalist: David is an expert horticulturalist, able to competently distinguish between the some 20,000 different species of orchid. David is presented with an orchid and asked to identify its species. Using his amazing skill, he can clearly tell that this particular orchid is either going to be an X-species or a Y-species (which look quite similar), and upon even further expert analysis, he comes to the conclusion that it is an X-species of orchid, which it is. However, Kevin, David’s nemesis and an expert horticulturalist in his own right, decided the night before to, using his skill as a horticulturalist, make the X-species of orchid look like a Y-species of orchid. Thankfully, however, Alvin, David’s other expert horticulturalist nemesis (who is conveniently not on speaking terms with Kevin), decided to try to trick David in the same way—arriving shortly after Kevin left, perceiving that the orchid was a Y-species, and cleverly making it look, once again, like an X-species. As such, while David’s belief that the given orchid is an X-species of orchid is largely for the right reasons (he was, after all, able to narrow down the possibilities from over 20,000 to just two), he does not ultimately *know* that it is an X-species of orchid since he was effectively Gettiered by the combined efforts of Kevin and Alvin.

Howard-Snyder *et al.* could always object that the relevant belief of protagonists like David is not true enough for the right reasons, but strengthened cases can always be produced. As such, given the right-reasons reading, it once again looks as though the only way for Howard-Snyder *et al.*’s proposed condition on warrant to completely avoid Gettier counterexamples is if it prohibits any belief from being knowledge that is true for any reason not predicted by the given agent’s evidence, reasons, or

cognitive processes. As such, if Howard-Snyder *et al.*'s condition is to avoid Gettier counterexamples, it will, in accord with our diagnosis, seemingly lead us to radical skepticism. And insofar as it is not possible for a warranted belief to be false while satisfying “true for the *completely* right reasons” reading of their condition, it looks again as though, ironically, the only way for their condition to surmount the Gettier Problem is to acquiesce to infallibilism.

Conclusion

The Gettier Problem has been a perennial problem in epistemology for over 50 years, and it has been a driving force behind the growing body of research on epistemic luck. However, as more and more proposed solutions have been developed in attempt to save the reductive analysis project, just as many Gettier-styled counterexamples or worries facing those solution have been noted. The goal of this chapter has been to better understand what the Gettier Problem is and propose an answer as to why it has proven to be so very problematic, why a viable reductive analysis of knowledge in terms of warranted true belief has been so elusive. And after considering a taxonomy of luck that identifies the specific species of luck at issue in Gettier cases, we began to see why the Gettier Problem is so problematic: it is inescapable.¹⁸ According to our proposed diagnosis, any given reductive analysis of knowledge faces a dilemma: either assume that warrant is fallible and face Gettier counterexamples or assume that warrant must be infallible and risk falling into radical skepticism. In sum, fallible theories of warrant will always face Gettier counterexamples, because if a warranted belief can be false then it can also be true for reasons not captured by the warrant (true via intervening luck). And infallible theories of warrant risk skepticism, because if a given theory of warrant is to avoid Gettier counterexamples then it needs to guarantee the truth of the belief in question. Given that few of our beliefs ever enjoy that much warrant—where they couldn't have gone wrong—there is a real worry that we're left with skepticism. Plato's insights into the nature of knowledge, that it requires truth, belief, and justification or warrant, might very well be correct; however, if the proposed diagnosis is correct, then maybe we were wrong to assume that such conditions could amount to a viable reductive analysis of knowledge.¹⁹

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¹ For discussions on how widespread this agreement might be, see Milburn and Machery’s chapter in this Handbook.

² The reductive analysis project treat “knowledge” as akin to terms like “bachelor.” “Bachelor” does yield a definition in terms of necessary and jointly sufficient conditions that are conceptually more primitive: namely, in terms of *unmarried* and *male*. The hope then, is that “knowledge” too will yield a similar in analysis, traditionally in terms of truth, belief, and justification.

³ To be sure, the goal in this section is not to propose a *theory* regarding the nature of luck. In the second part of this handbook, a number of different theories regarding the nature of luck are proposed—lack of control theories, modal theories, risk theories, etc.—but our goal here is to simply give a taxonomy of the different kinds of epistemic luck. Such a taxonomy, it’s assumed, will be relevant regardless of what particular theory of luck we might want to endorse.

⁴ In this chapter, I will be assuming—along with most the contemporary philosophical literature on the Gettier Problem—that the kind of luck at issue in Gettier cases is incompatible with knowledge. That said, however, such an intuition can be and has been challenged. See Stephen Hetherington’s chapter in this Handbook.

⁵ A version of this example was developed in Unger, 1968, p. 159 and was referenced by Pritchard in 2005, p. 136.

⁶ For example, we might say that perception immediately forms beliefs, such that an agent who luckily perceived some evidence may be evidentially lucky but not doxastically; however, such a model only seems compatible with an externalist point of view. Conversely, we might say that a given agent had all the evidence needed for such and such a belief but did not believe it until by luck some non-evidential stimulus caused the agent to draw the appropriate conclusion; however,

can evidence for X count as evidence for X if the agent fails to recognize it as such? It is not at all clear. See Pritchard, 2005, pp. 136–141.

⁷ Also see Zagzebski, 1994, p. 66. Duncan Pritchard notes that cases like FAKE BARNS are not Gettier case, because the protagonist does not make a “cognitive error,” see Pritchard et al., 2010, pp. 35–36.

⁸ For more on environmental luck, see Ben Jarvis’s chapter in this Handbook.

⁹ See Zagzebski, 1996, pp. 295–299.

¹⁰ See Kvanvig, 1992.

¹¹ John Greco has occasionally expressed a “Gettier problems aside” view (1993, p. 413). That said, however, this is not all indicative of Greco’s approach to the Problem; in fact, he’s proposed arguably some of the most sophisticated solutions to the Gettier Problem in the literature.

¹² See See McDowell, 1995 and Williamson, 2000.

¹³ To be sure, Zagzebski doesn’t make this point, but, as I’ll argue in this section, it seems to naturally follow from such a diagnosis.

¹⁴ This point is also highlighted in Chisholm, 1982; Dretske, 1978; Goldman, 1986; Howard-Snyder et al., 2003; Nozick, 1981; Sturgeon, 1993 To be sure, Howard-Snyder et al. (2003) highlight this agreement in the literature and try to suggest that it’s misplaced; we’ll consider Howard-Snyder et al.’s objection later in this chapter.

¹⁵ Now, to be sure, this all assumes that warrant bears some close, if not infallible, relationship to the truth. Some epistemologists (e.g. Hetherington, 2001 and Hetherington in this volume) have denied this—denied that warrant needs to bear any relationship to the truth. While such views have been powerfully argued for, they are nevertheless outliers in the literature; unfortunately, we will not have time to address them in this chapter.

¹⁶ This is a point I made in “Getting ‘Lucky’ with Gettier” (2013a)

¹⁷ No doubt, a great deal more needs to be said on this score. Arguably, many contemporary accounts of virtue epistemology endorse an infallible theory of warrant without leading to skepticism in any obvious way. Unfortunately, we don’t have the space to consider such objections here; however, I have responded to one such objection elsewhere. See Church, 2013b.

¹⁸ At least within a viable reductive analysis of knowledge. Plausibly, one might “escape” the Gettier Problem by abandoning the project of defining knowledge in terms of a reductive analysis.

¹⁹ I am enormously grateful to Bob Hartman for his detailed feedback on an earlier drafts of this chapter. I am also thankful to John Greco for arguing with me about many of the ideas presented here and for putting up with my stubbornness!