Dissolving the Gettier Problem

Dissolving the Gettier Problem:

Beyond Analysis

By

John Ian K. Boongaling

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For Mia

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PREFACE

Much of the research work that I have done in philosophy has focused on problems within the fields of epistemology, philosophy of mind, philosophy of language, and logic.[1] Hence, in this book, I chose to focus on expanding the arguments that I presented in my 2017 article entitled "Hintikka's Socratic Epistemology Meets Gettier's Counterexamples" (henceforth SE)[2] published in *Kriterion: Journal of Philosophy* Vol. 31, No. 3.

When I wrote SE, I have a simple goal in mind: to apply Jaakko Hintikka's Socratic Epistemology to Gettier's counterexamples in order to see if the method of inquiry implicit in the former can have significant effects on the latter. In particular, I was interested in its possible implications to the Gettier Problem (which as we all know is an open problem in contemporary epistemology).

The result that I obtained in SE is positive but extremely limited: By applying Hintikka's method, I was able to demonstrate that it is possible for us to arrive at *a* scenario where Gettier cannot successfully set up the dilemma for the JTB Thesis. However, this result also means that there are scenarios where Gettier *can* successfully set up the dilemma for the JTB Thesis. Thus, in response to the (all too familiar) question as to whether or not the *subject* (or *epistemic agent*) in the famous counterexamples "knows that P," we can only say that the aforementioned question allows for *two* possible answers: one that affirms Gettier's intended result (i.e., that the JTB

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[1] See for instance, John Ian K. Boongaling, "Logical Quantification and Plato's Theory of Forms," *Aufklärung* 2, No. 2 (2015): 11-26; "Ways of Approaching Truth: Tracing the Source of Inflationary Theories of Truth's Predicament," *Discusiones Filosoficas* 16, No. 27 (2015): 15-29; "Some (Philosophical) Problems for Consciousness as a Neural Capacity for Objectivity," *Organon F: International Journal of Analytic Philosophy* 22 No. 3 (2015): 325-339; "Russell and Strawson on Definite Descriptions: The Principle of Charity and its Role in the Appraisal of a Philosophical Theory," *Filosofia Unisinos* 14, No. 3 (2013): 189-203; "On the Prospect of an Experimental Account of Argumentation," *Frontiers in Psychology* 7 (2016): 1-2; and "On the Supposed Connection Between Aristotle's Metaphysics and Logic," *Problemos* 90 (2018): 20-34.

[2] John Ian K. Boongaling, "Hintikka's Socratic Epistemology Meets Gettier's Counterexamples," *Kriterion: Journal of Philosophy* 31, No. 3 (2017): 25-56.

Thesis is false and must therefore be abandoned), and another one that (partially) undermines it.

Clearly, and as I have mentioned earlier, the result above is positive but limited. Thus, the most that I achieved in SE is to put a small dent on the Gettier Problem. But perhaps this dent is significant enough to merit publication. After all, SE is the very first study of its kind. Perhaps this is also the main reason why the editors of *Kriterion* and the anonymous reviewers thought that my work in SE deserves to have a home in the journal, and thus, be made available to the philosophical community. Whatever the case may be, I will always be grateful to the editors of *Kriterion*, namely Christian J Feldbacher-Escamilla of the Dusseldorf Center for Logic and Philosophy of Science (DCLPS) at the University of Dusseldorf, Germany and Alexander Gebharter of the Department of Theoretical Philosophy at the University of Groningen, Netherlands for all their help and support in the entire submission and publication process.

Unlike my work on SE, however, this book is different both in terms of its *scope* and *purpose*. For one thing, in this book, I am confident that I can provide a decisive blow to the Gettier Problem (and not a mere dent). In particular, this book differs from my initial work on SE since it demonstrates that: (1) The Gettier Problem can be understood in at least *two* ways: (a) as the problem of providing a *fourth condition* for knowledge (what I call "GP_1"), and (b) as the problem of *eliminating luck* in the various Gettier cases (what I call "GP_2"); (2) Gettier's preferred method (i.e., the method of analysis) leads to an *impasse*; (3) Taken together, (1) and (2) do not only provide us with a cogent *explanation* for the complexity of the Gettier Problem, but also with a helpful *diagnosis* that can account for the failure of the standard solutions that have been offered so far to solve it; (4) From (1) – (3), we can therefore say that they provide us with sufficient grounds for trying a different approach to the Gettier Problem (i.e., Hintikka's Socratic Epistemology); and finally, (5) By employing Hintikka's Socratic Epistemology and attacking the problem at its roots, we can develop *frames* (of *inquiry*) in order to arrive at a complete *dissolution* of the Gettier Problem by showing that Gettier was not able to successfully set up the dilemma for the JTB Thesis (after all).

Combined, (1) - (5) above enable me to provide a new contribution to the discipline in the form of a set of interconnected arguments for the decisive dissolution of the Gettier Problem. Here, I would also like to mention that this contribution would not have been possible without the guidance, critical comments, and patience of Professor Zosimo E. Lee, my mentor. I would also like to thank Professor Ciriaco M. Sayson, Jr. for

helping me clarify some important points in the initial version of this manuscript.

At this juncture, one may claim that the inclusion of some of the parts of my work on SE in this book is unnecessary.[3] Yet, a thorough understanding of Hintikka's Socratic Epistemology shows otherwise. Hintikka, for instance, describes the method of inquiry that he employs in Socratic Epistemology as a *self-corrective* process, and unlike many contemporary epistemologists, he maintains that *discovery* and *justification* are "aspects of one and the same process"[4] (of inquiry). To be honest, it is only fairly recently that I was able to fully appreciate the potential of Hintikka's insight. Like many other philosophers before me, I was comfortable with the distinction between discovery and justification (e.g., context of discovery vs. context of justification, logic of discovery vs. logic of justification), and the idea that epistemology (as Hans Reichenbach tells us) is only concerned with the task of justification.[5] It is therefore not surprising that contemporary epistemology is preoccupied with issues that revolve around *epistemic justification*, most especially after the publication of Gettier's famous paper.

Most (if not all) of us will agree that we encountered the following question countless times in the works of philosophers who specialize in epistemology: "Is he/she justified in believing that P?" In recent years, however, we witnessed a gradually increasing discontentment with the discovery-justification distinction not only in epistemology, but also in the philosophy of science. To substantiate this observation, some philosophers of note comment that contemporary epistemology, especially in the analytic tradition, is obsessed with justification.[6] To be sure, justifying whether or not we have knowledge of a given proposition is important for reasons that are not only philosophical, but also practical. However, the unhealthy obsession with this task (i.e., the task of identifying conditions/criteria for knowledge) has been instrumental, perhaps indirectly, in the neglect of an

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[3] For instance, the notations and the frames (or partitions) that I used in Chapter 4, Section 2 of this book. Personally, I think that this is unavoidable since I am dealing with the same philosophical problem and I am using the same method. Take note, however, that while I adopted the notations that I developed in SE in this book, the arguments that accompany them as well as the results are different.

[4] Jaakko Hintikka, *Socratic Epistemology: Explorations of Knowledge-Seeking by Questioning*, (Cambridge: Cambridge University Press, 2007), 3.

[5] Hans Reichenbach, *Experience and Prediction: An Analysis of the Foundations and the Structure of Knowledge* (Chicago: The University of Chicago Press, 1938).

[6] Michael A. Bishop and J. D. Trout, "Epistemology's Search for Significance," *Journal of Experimental & Theoretical Artificial Intelligence* 15, No. 2 (2003): 203-216.

equally important task for epistemology: modeling the belief-formation process and the knowledge acquisition process. Here, what I wish to emphasize is this: We have been too preoccupied with the *assessment* of the *end product* of inquiry that we failed to focus on the very *method* (or *process*) itself through which we form our beliefs and arrive at knowledge.

Within this context, it can therefore be said that this book is an actual practice of Hintikka's Socratic Epistemology since it does not only apply the method of inquiry to the Gettier Problem but also to my own theoretical work in relation to the problem. With this in mind, this book can also be perceived as providing a new contribution in philosophy in so far as it initiated a "self-corrective process" that aims to engage others in the game of inquiry in the manner of Hintikka's Socratic Epistemology.

CHAPTER 1

UNDERSTANDING THE GETTIER PROBLEM

1. Introduction

When we talk about the Gettier Problem, we usually think that we have a clear understanding of what it is all about and what it entails not only for epistemology, but more importantly, for philosophy as a whole. This kind of thinking is understandable. After all, Edmund Gettier's refutation[1] of the traditional analysis of knowledge as *justified true belief* is considered by many contemporary philosophers as one of the most successful refutations that have been produced in the history of Western philosophy.[2]

In this chapter, I will argue that the Gettier Problem is much more complicated than our *usual* understanding of it. The main reason that lends support to this claim can be stated this way: *The Gettier Problem can be understood (or interpreted) in at least two ways: (1) as the problem of providing a fourth condition for (our analysis of) knowledge and (2) as the problem of eliminating luck in the various Gettier cases.*[3] To a large extent, this chapter may therefore be construed as a *demonstration* that the main reason mentioned above for the added complexity of the Gettier Problem compared to our usual understanding of it is both *well-founded* and *desirable* in our overall attempt to arrive at a proper understanding of the problem as well as the accompanying problems that it handed down to contemporary epistemology.

At the outset, it is important to note *why* the aforementioned distinction is important for our current purposes. First of all, if the Gettier

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[1] For the actual refutation of the traditional analysis of knowledge as justified true belief using his two counterexamples to it, see Edmund Gettier, "Is Justified True Belief Knowledge?" *Analysis* (1963): 121-123.

[2] The assessment that Gettier successfully refuted the traditional analysis of knowledge as justified true belief is shared by *many* philosophers. On this point, see Ernest Sosa, et al., *Epistemology: An Anthology* (Massachusetts: Blackwell Publishing, Ltd., 2008), 189, as well as Michael Huemer, *Epistemology: Contemporary Readings* (New York: Routledge, 2002), 436.

[3] It is important to note that *luck* is the common denominator in all the Gettier cases.

Problem can be understood in at least two ways, then it is only reasonable to say that it suffers from a serious *problem of ambiguity*. As we all know, ambiguity, most especially the *semantic* kind, has significant effects on "the truth-conditions of sentences"[4] (or to be more precise, on our *assessment* of their corresponding truth values (e.g., true, or false)). Thus, it is imperative, on our part, to first try to understand what it is exactly that we *mean* when we talk about the Gettier Problem.

Second, if it is indeed the case that the Gettier Problem suffers from a problem of ambiguity, then by that very fact, we can correctly say that the above mentioned distinction has important *consequences* for our attempts to either *solve* or *dissolve* the problem (depending on the route that we decide to pursue in the process). After all, *what counts as a satisfactory solution to any given problem is determined, to a large extent, by the meaning of the problem itself*. It is in this spirit that I decided to start this book by clarifying, first and foremost, what we mean by the Gettier Problem.

At this juncture, an analogy may prove to be helpful to drive home the point that I wish to accentuate above. To my mind, the case is no different from a typical activity that involves *asking questions* and *providing answers* to these questions. In this activity, we can easily agree that a proper understanding of the question already carries with it some *criteria* as to what counts as an appropriate answer to the question. Thus, in ordinary circumstances, when we ask a student as to when she will submit her final paper for the course, we naturally expect that person to provide us with a date, or a time, or anything similar to these that will clearly satisfy what we are asking the other person to provide us. Understanding a question, therefore, carries along with it, an implicit understanding of the appropriate answer that the question demands from us.

Aside from the first two reasons that I provided earlier as to why the above mentioned distinction (i.e., the distinction between the two ways by which we can understand the Gettier Problem) is important for our current purposes, there is also a third reason, but this reason is not as important as the first two. In other words, it is simply an *added feature* of the distinction. As we shall see later on, most especially in Chapter 2, the distinction that I am offering above can also be helpful in terms of *classifying* the standard solutions that have been offered so far by various philosophers in response to the Gettier Problem.

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[4] Esa Saarinen, "Quantifier Phrases Are (At Least) Five Ways Ambiguous in Intensional Contexts," in *Ambiguities in Intensional Contexts*, ed. Frank Heny (Dordrecht: D. Reidel Publishing Company, 1981), 2.

2. The Traditional Analysis of Knowledge

As the title of this chapter suggests, my overall goal is to arrive at a *proper* understanding of the Gettier Problem. To accomplish this task, it is imperative, on my part, to first provide a clear discussion of Gettier's *main target*: the traditional analysis of knowledge as justified true belief.[5] Before I discuss the traditional analysis of knowledge, however, let me first state, for the record, an important point that is crucial not only for guiding the flow of our discussion, but also for developing the structure of the argument that I will present in this chapter: *The Gettier Problem is a direct consequence of two things: (1) the traditional analysis of knowledge and (2) Gettier's counterexamples to (1).* Thus, it is only reasonable to say that a proper understanding of the Gettier Problem entails a prior understanding of both (1) and (2).

In this section, I will focus on (1) above. In the process of discussing (1), I will also demonstrate that the traditional analysis of knowledge is heavily reliant on a particular conception of analysis (one that is deeply embedded in the very method that is employed by various philosophers from Plato up to the contemporary period in the history of Western philosophy): *analysis as decomposition.*

If I am correct, this demonstration can lead us to an important result: the plausibility of *linking* together, in a natural and systematic way, the problem of knowledge in ancient philosophy and the problem of knowledge as it is usually understood in contemporary epistemology.

To *motivate* our discussion of the traditional analysis of knowledge, let me begin this section with a simple but helpful scenario to highlight the usual ways by which we understand some of the central *concepts* that we encounter in epistemology. Imagine, for a moment, that you are a judge in a country where certain violations of the law are punishable by death. Let us assume that you are a fair and reasonable judge. Let us also assume that you are a person of unquestionable professional and moral integrity.

In the scenario above, we would all agree that nothing less than *knowledge* would entitle someone like you to render a guilty verdict on a person accused of committing a crime (that is punishable by death). It is not

[5] The traditional analysis of knowledge is also called the "tripartite analysis of knowledge." For a detailed discussion, see Robert Brandom, *Making it Explicit: Reasoning, Representing, and Discursive Commitment* (Massachusetts: Harvard University Press, 1998), 207. For additional information, see Vincent Hendricks, *Mainstream and Formal Epistemology* (Cambridge: Cambridge University Press, 2006), 13.

enough, for example, that you merely *believe*, even if that belief turns out to be *true*, that the accused is guilty of committing the crime.

From the scenario above, we can easily see *why* it is important to distinguish between cases of *knowledge* and cases of merely *true belief*, most especially since a mistake in judgment, in this case, means the forfeiture or continuance of another human being's life. It is, therefore, safe to say, that in this and other similar cases, not upholding the aforementioned distinction is disastrous not only *epistemically*, but also *morally*.

Given the importance that philosophers attach to the concept of knowledge, it is not surprising that the *problem of knowledge* has been with us for a very long time. For instance, contemporary philosophers, including Gettier himself, trace the *origin* of the traditional analysis of knowledge to the writings of Plato, in particular, the *Theaetetus* and the *Meno*.[6] For instance, in 201d of the *Theaetetus*, Theodorus' pupil, Theaetetus, responds to Socrates' question (i.e., "What is knowledge?") by saying that "*it is true judgment with an account that is knowledge; true judgment without an account falls outside of knowledge*."[7]

In the passage above, we see Theaetetus' *third* attempt to arrive at a satisfactory *definition* of knowledge (in the sense demanded by Socrates). More importantly, we see the early recognition of philosophers, like Plato, that true judgment alone does not constitute knowledge. This explains why there is a felt need, on Plato's part, to add another condition to true judgment for it to qualify as knowledge: *True judgment must be accompanied with an account.*

From an *interpretative* standpoint, it is important to note that in the *Dialogues*, Plato is not merely asking for the definition of terms (or concepts). More correctly, it can be said that Plato is actually seeking for the *nature* of φ.[8] Let me explain this point further. While it is true that Plato's *Theory of Forms* "arose out of Socrates' quest for definitions,"[9] as some philosophers point out, we also cannot deny that for him, the quest for definitions is a mere *vehicle*, a means by which we can arrive at the *proper* destination (or end) of philosophical thought and discourse: *the Forms*. To further strengthen this point, Mary Louise Gill argues, for instance, that in the *Dialogues*, Plato did not only learn from Socrates' definitional project,

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[6] To substantiate this claim, see Gettier, 121.

[7] Plato, "Theaetetus," in *Plato: Complete Works*, eds. John M. Cooper and D. S. Hutchinson (Indianapolis: Hackett Publishing Co., Inc., 1997), 223. [Emphasis added]

[8] Here, "φ" is to be understood as a variable that is replaceable by different philosophical concepts like Knowledge, Justice, Virtue, Piety, etc.

[9] Andrew Mason, *Plato* (Stocksfield: Acumen Publishing, Ltd., 2010), 65.

but also took over it. One of the chief motivations for continuing the aforementioned project is the recognition that sensible objects are unstable (i.e., they keep changing). Due to this, Gill believes that Plato "posited *immaterial forms*, separate from the physical world, *as the stable objects of definition and knowledge*."[10]

As Gill correctly points out, for Plato, the proper objects of definitions and knowledge are none other than the Forms, since they are supposed to be eternal and unchanging, unlike sensible things (e.g., physical objects). From this, it can correctly be inferred that for Plato, a satisfactory account of φ reveals to us the *nature* of (or if we prefer, the *Form* of) φ, and not simply its acceptable definition.

The short excursion above regarding an important interpretative aspect of Plato's search for definitions and its relation to the Forms is crucial for our current discussion regarding the origin of the traditional analysis of knowledge. For instance, in 98a of the *Meno*, another often cited passage in relation to our current discussion, we can safely say that for Socrates, *true opinions* (or *correct opinions*) do not count as knowledge because opinions, by their very nature, are considered to be unstable by both Socrates and Plato. In 98a of the *Meno*, Socrates tells us that opinions (even if they happen to be true) are not really worth much. To have value, true opinions, as far as Socrates and Plato are concerned, must be tied down. Here, it is important to note that being "tied down" in this context means *"(giving) an account of the reason why.*"[11] Note that this is a fitting analogy. In essence, what Socrates and Plato are trying to tell us is that knowledge differs from true opinions because the former, unlike the latter, is tied down, and since it is tied down, it is therefore secure, and this explains why "knowledge is prized higher than correct opinion."[12]

Consistent with what we said earlier as well as with the views expressed by Gill, we can easily see that in 98a of the *Meno*, true opinions are like sensible things in an important respect: *They are always changing and thus unstable.* In Socrates' words (in the quoted passage above), this is because true opinions are not "tied down" and this explains why they do not constitute knowledge in the sense demanded by philosophers like Socrates and Plato.

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[10] Mary Louise Gill, *Philosophos: Plato's Missing Dialogue* (Oxford: Oxford University Press, 2012), 77. [Emphasis added]

[11] Plato, "Meno," in *Plato: Complete Works*, eds. John M. Cooper and D. S. Hutchinson (Indianapolis: Hackett Publishing Co., Inc., 1997), 896. [Emphasis added]

[12] Ibid.

At this point, it is important to note that although the main problems of the *Meno* concern *virtue*, and whether or not it can be taught, we can easily see from the discussions in the *Meno* that these problems *cannot* be isolated completely from the problem of knowledge. After all, one of the ideas being forwarded as a *hypothesis* in 89c of the *Meno* is that *virtue is knowledge*.[13]

As we can see in 98a of the *Meno*, Socrates distinguishes, albeit metaphorically, between knowledge and true opinion in the sense that the former, unlike the latter, is essentially tied down. As Socrates explains, being "tied down" in this context involves giving an *account*[14] of the underlying reason as to why it is so, and not otherwise.

There is, however, *another* important point that I wish to accentuate in the aforementioned passage, and this point may help *explain* and *link* together the problem of knowledge in ancient philosophy and contemporary epistemology. Take note that in 98a of the *Meno*, Socrates clearly acknowledges the following statements to be correct:

(1) *Knowledge, unlike true opinion, is stable.*
(2) *Knowledge is stable because it is tied down.*
(3) *Knowledge is prized higher than true opinion.*

From (1) – (3) above, we can correctly say that Socrates was able to *explain* (3) by relying on a *distinction* that he offered in (1) and (2) (i.e., the distinction between *knowledge* and *true opinion*). In an important sense, therefore, we can maintain that questions about the *value* of knowledge can only be answered in the event that we can provide a *clear* and *principled* distinction between knowledge and true opinion.

At this point, one may ask as to how (1) – (3) above are *connected* to the problem of knowledge in contemporary epistemology. Fortunately, the answer to such a query is not difficult to provide. When contemporary philosophers talk about the problem of knowledge, we can correctly say that they are interested in several, but intimately connected problems. This is to be expected since epistemology, as an area of philosophy, deals with questions regarding the "nature, sources, limitations, and validity of knowledge."[15] *Two*

[13] Ibid., 889.
[14] It is important to note that in the *Dialogues*, Plato uses "account" in a number of ways. It can mean: (a) *statement*, (b) *argument*, (c) *speech*, and (d) *discourse*.
[15] Manuel Velasquez, *Philosophy: A Text with Readings*, 10th ed. (Belmont: Thomson Learning, Inc., 2008), 660.

problems, however, remain central to the task of contemporary epistemology: (1) the *nature problem* and (2) the *value problem* of knowledge.[16]

Primarily, the nature problem and the value problem of knowledge differ in terms of their *focus*. In a very general way, the nature problem focuses on the specification of the conditions that true beliefs (or in our current discussion, true opinions), must satisfy "in order to constitute knowledge."[17] On the other hand, the value problem focuses on "the problem of accounting for the distinctive value of knowledge"[18] as opposed to merely true beliefs.

As might be expected, the nature problem and the value problem of knowledge are intimately connected in a very important sense: *The value that we attribute to knowledge can only be explained in the event that we are able to provide a clear and principled distinction between knowledge and merely true beliefs.* If this is correct, we can plausibly maintain that any successful solution to the value problem would have to rely heavily on a successful solution to the nature problem of knowledge. From an *explanatory* standpoint, we can therefore say that the nature problem enjoys some sort of *logical priority*[19] over the value problem of knowledge in contemporary epistemology.

At this juncture, the connection between the problem of knowledge in ancient philosophy and contemporary epistemology is now in plain sight: As our earlier discussion shows, *Plato (through Socrates) is able to anticipate and discuss the nature problem and the value problem*[20] *of knowledge in the Dialogues such as the Theaetetus and the Meno*. For this reason, contemporary philosophers like Frederick Schmitt maintain that Plato, in the *Dialogues*, was able to "set the agenda for the theory of knowledge."[21]

Mindful of the intimate connection between the nature problem and the value problem of knowledge, and the logical priority enjoyed by the

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[16] For a detailed discussion, see Duncan Pritchard, Allan Millar, and Adrian Haddock, *The Nature and Value of Knowledge: Three Investigations* (Oxford: Oxford University Press, 2010).

[17] Ernest Sosa, *Epistemology* (New Jersey: Princeton University Press, 2017), 106.

[18] Pritchard, et al., *The Nature and Value of Knowledge*, 23.

[19] Here, I am using "logical priority" in an extremely broad sense. When we say that "φ is logically prior to ψ," we can mean that ψ is *epistemically*, or *conceptually*, or *ontologically*, dependent on φ.

[20] This explains why Sosa calls the nature problem and the value problem of knowledge as "Platonic problems of knowledge." For additional information, see Sosa, *Epistemology*, 106.

[21] Frederick Schmitt, *Knowledge and Belief* (London: Routledge, 1992), 1.

former over the latter in order of explanation, we can therefore understand *why* contemporary philosophers have been preoccupied with the traditional analysis of knowledge as justified true belief. This observation holds true especially for contemporary philosophers who subscribe to the view that the fundamental task of philosophy consists in some form of *analysis*.[22] For these philosophers, the hope is that, in the end, *a correct analysis of knowledge will result in a correct explanation of the value that we usually attribute to it*.

Earlier, we said that in 98a of the *Meno*, Socrates was able to explain the value of knowledge by relying on an important distinction between knowledge and true opinion. While we may agree with the general strategy implicit in the *Dialogues* such as the *Theaetetus* and the *Meno*, we must admit that the problem of knowledge in contemporary epistemology, both in terms of the nature problem and the value problem, is *much more difficult and complicated* compared to its ancient counterpart. The main reason that lends support to such an admission is well known: *Gettier's short but epoch-defining paper and its damaging result to the traditional analysis of knowledge as justified true belief*. To be more specific, the contemporary problem is much more difficult and complicated because Gettier has shown, through his famous counterexamples, that knowledge is not simply justified true belief, as most philosophers have previously thought.

After tracing the origin of the traditional analysis of knowledge (as justified true belief) and linking together the problem of knowledge in the writings of Plato and contemporary epistemology *via* the nature problem and the value problem of knowledge, we are now in a position to discuss the *components* of the traditional analysis of knowledge as it is commonly understood in contemporary epistemology. According to the traditional analysis of knowledge, *S knows that P if and only if*

C_1: *P is true*;
C_2: *S believes that P*; *and*
C_3: *S is justified in believing that P*. (JTB Thesis)[23]

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[22] Take, for example, contemporary philosophers who view philosophy as a form of *conceptual analysis*: "For those engaged in this endeavor, the general goal has been to discover the correct analysis or definitions for a number of different abstract concepts." See William Ramsey, "Conceptual Analysis and the Connectionist Account of Concepts" in *Philosophy and Cognitive Science: Categories, Consciousness, and Reasoning*, eds. Andy Clark, Jesus Ezquerro, and Jesus Larrazabal (Dordrecht: Kluwer Academic Publishers, 1996), 36.

[23] From now on, I will refer to the traditional analysis of knowledge (as justified true belief) as the "JTB Thesis." As another important note, I chose to use "P" instead of

It is important to note that in the formulation of the JTB Thesis above, "S" stands for a *subject* (or in our discussions later on, an *epistemic agent*) and "P" stands for a *proposition*.[24] Although "analysis" can be understood in several ways, it is important to note that the term, as it is typically used and understood in this context, refers to the more traditional kind: analysis as decomposition.[25] Simply put, "analysis" in this context, involves the arduous task of resolving something down, for instance, a *whole* into its *parts*, or in our present case, *knowledge* into its various *components*.[26]

As we can see from the formulation of the JTB Thesis earlier, what we have is a *biconditional*. On the left side of the biconditional, we have: S knows that P (what we call the "analysandum"), and on the right side, we have: $C_1 – C_3$ (what we call the "analysans").

In a very general way, the idea is that the *conditions* stated in the analysans are *individually necessary* and *jointly sufficient* for the analysandum. Thus, cases that fulfill $C_1 – C_3$ (in the analysans) should count as *clear* (or *genuine*) cases of knowledge, as the JTB Thesis tells us. Gettier has shown, however, through his famous, and at the moment, heavily replicated counterexamples, that *it is possible for an epistemic agent S to satisfy $C_1 – C_3$ above, but at the same time, fail to have knowledge that P*. If Gettier is correct, and many of his contemporaries think that he is, then this means that the JTB Thesis (or any version of it), fails to provide us with a correct analysis of knowledge.[27]

"p" in this book because Gettier used the former instead of the latter in his original formulation of the JTB Thesis. See Gettier, 121.

[24] Here, a "proposition" is to be understood as a declarative sentence that is capable of being *true* or *false* (e.g., *The radius of China's bombers in the West Philippine Sea covers a huge part of the Philippine islands*.) In recent scholarship, propositions are usually characterized as "truth-apt." On this point, see Michael Thau, *Consciousness and Cognition* (Oxford: Oxford University Press, 2002), 68.

[25] Other senses (or varieties) of "analysis" include: (a) analysis as *regression*, (b) analysis as *interpretation*, etc. For a detailed discussion, see Michael Beaney, *Analytic Philosophy: A Very Short Introduction* (Oxford: Oxford University Press, 2017). For additional information on the same topic, see also Michael Beaney, *The Analytic Turn: Analysis in Early Analytic Philosophy and Phenomenology* (New York: Routledge, 2007).

[26] $C_1 – C_3$ in the JTB Thesis above correspond to the traditional components of knowledge, namely: (a) *truth*, (b) *belief*, and (c) *justification*.

[27] In the original article, Gettier explicitly mentions the versions provided by Chisholm and Ayer. He argues that these versions will also fail if we substitute "has evidence for" (in Chisholm's case) or "has the right to be sure that" (in Ayer's case) for "is justified in believing that" in the formulation of the JTB Thesis. For more details, see Roderick M. Chisholm, *Perceiving: A Philosophical Study* (New York:

3. Gettier's Counterexamples

In the previous section, I discussed, in careful detail, the main target of Gettier's counterexamples (hereafter GCs): the JTB Thesis. In this section, I will discuss *how* Gettier, through the GCs, was able to show that the JTB Thesis fails to provide us with a correct analysis of knowledge. To accomplish this task, I will first explain Gettier's general strategy for the GCs. Next, I will provide a general description (or to be more accurate, a *reconstruction*) of the GCs.[28] Finally, I will discuss an important point regarding the proper interpretation of the JTB Thesis.

As I will demonstrate later in this section, the JTB Thesis is not concerned with knowledge in general, but only with a limited kind of knowledge: *propositional knowledge*. If this is correct, it is only reasonable to maintain that the GCs, and their supposed accomplishments, should only be *limited* to cases which involve propositional knowledge. In my estimation, this point is crucial for us to be able to arrive at a proper understanding not only of the GCs and their main target (i.e., the JTB Thesis), but also of their immediate consequence: the Gettier Problem.

Let us begin by discussing Gettier's general strategy for the GCs. When philosophers offer *counterexamples* to a particular definition (of a concept), they use these counterexamples to show that the definition in question is either *too broad* or *too narrow*, and hence, unsatisfactory as an analysis of the concept that they are trying to explicate. In the case of "knowledge," a definition is too broad if it classifies as knowledge something that in fact is not knowledge. On the other hand, a definition of "knowledge" is too narrow if it does not classify as knowledge something that in fact is knowledge. In the context of the GCs as counterexamples to the definition of knowledge provided by the JTB Thesis, Michael Huemer says the following: "Gettier's counter-examples are of the first kind; in other words, they show that justified, true belief is not *sufficient* for knowledge.[29] As Huemer correctly states, the GCs that Gettier employed to test the JTB Thesis fall under the first strategy (i.e., to show, through the counterexamples, that the definition of knowledge as JTB is *too broad*).

Cornell University Press, 1957), as well as A. J. Ayer, *The Problem of Knowledge* (London: Macmillan, 1956).

[28] The following description (or reconstruction) of the GCs (with modifications) may also be found in Section 2 of my paper. See John Ian K. Boongaling, "Hintikka's Socratic Epistemology Meets Gettier's Counterexamples," *Kriterion: Journal of Philosophy* 31, No. 3 (2017): 25-56.

[29] Michael Huemer, *Epistemology: Contemporary Readings* (New York: Routledge, 2002), 436. [Emphasis in the original]

At this point, a detailed discussion of the GCs is in order so as to explain how Gettier was able to show that the JTB Thesis is false. Let us begin with Gettier's first counterexample to the JTB Thesis. In GC_1, Gettier asks us to consider the case of two individuals, Smith and Jones, who are both applying for a certain job. Gettier then asks us to grant the *assumption* that Smith has *strong evidence* for the following conjunctive proposition:

SI_1: *Jones is the man who will get the job, and Jones has ten coins in his pocket*.[30]

Some of the possible pieces of *evidence* at Smith's disposal for SI_1 above are the following:

SE_1: *The president of the company told Smith that Jones would be selected.*
SE_2: *Smith counted the coins in Jones' pocket (Jones has ten coins in his pocket.)*.[31]

It is important to note that SI_1 is an *inference* made by Smith based on SE_1 and SE_2 above. In addition, SI_1 *logically entails* the following proposition:

SI_2: *The man who will get the job has ten coins in his pocket.*[32]

To complete the *first* part of GC_1, Gettier asks us to grant the following *additional assumptions*: (1) that Smith sees the entailment from SI_1 to SI_2 and (2) that Smith accepts SI_2 on the grounds of SI_1 (for which he has strong evidence). Given these additional assumptions, Gettier then concludes that Smith is justified in believing that SI_2 is true.

In the *second* part of GC_1, Gettier introduces the *characteristic move* involved in the GCs: *the introduction of pieces of evidence that are unavailable (or inaccessible) to epistemic agents like Smith*. In this regard, Gettier asks us to grant that "unknown to Smith, he himself, not Jones, will get the job. And, also, unknown to Smith, he himself has ten coins in his

[30] "SI_1" stands for Smith's *inference* no. 1 (a label that we will attach to the conjunctive proposition in GC_1 so that we can easily refer to the aforementioned proposition in our discussions later on).
[31] "SE_1" and "SE_2" stand for Smith's *evidence* nos. 1 and 2, respectively. Take note as well that these possible pieces of evidence are from Gettier himself. See Gettier, 122.
[32] "SI_2" stands for Smith's *inference* no. 2.

pocket."[33] At this point, GC_1 is *complete* and the resulting picture is as follows: (1) *SI_2 is true*, (2) *Smith believes that SI_2 is true*, and (3) *Smith is justified in believing that SI_2 is true*.

Let us now turn to GC_2 (Gettier's second counterexample). In GC_2, Gettier presents the case of Smith, Jones, and Smith's other friend, Brown. Just like the scenario in GC_1, Gettier asks us to grant that Smith has *strong evidence* for the following proposition:

SI_1*: *Jones owns a Ford.*

Here are Smith's possible pieces of evidence for SI_1* (as provided by Gettier himself):

SE_1*: *Jones has always owned a car.*
SE_2*: *Jones' car has always been a Ford.*
SE_3*: *Jones offered Smith a ride while driving a Ford.*

Gettier then asks us to imagine that Smith has another friend, Brown. Smith then selects three-place names at *random* and constructs the three propositions below:

SI_2*: *Either Jones owns a ford, or Brown is in Boston.*
SI_3*: *Either Jones owns a Ford, or Brown is in Barcelona.*
SI_4*: *Either Jones owns a Ford, or Brown is in Brest-Litovsk.*

Take note that each of the propositions above is entailed by SI_1*.[34] On the assumption that Smith recognizes such entailment and then proceeds to accept SI_2*, SI_3*, and SI_4* on the basis of SI_1* which, as we granted, is a proposition for which he has strong evidence, then "Smith is therefore completely justified in believing each of these three propositions. Smith, of course, has no idea where Brown is."[35]

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[33] Gettier, 122.
[34] This can easily be demonstrated to be correct. Let φ have the value: True. If φ is True, then φ ∨ ψ is also True. In propositional (or sentential) logic, this inference is valid. As a matter of fact, it is part of the set of tautologies that we usually refer to as the "Rules of Inference" (of the system). This specific rule is called "Addition." Take note as well that, collectively, the Rules of Inference are considered by logicians as elementary valid argument forms.
[35] Gettier, 123.

To complete the argument, Gettier asks us to grant that the following additional conditions also hold: Unknown to Smith: (1) *Jones does not own a Ford* (e.g., Jones is merely driving a rental car.) and (2) *Brown is, in fact, in Barcelona*.

Just like the scenario in GC_1, we find ourselves confronted with the following result in GC_2: (1) *SI_3* is true*, (2) *Smith believes that SI_3* is true*, and (3) *Smith is justified in believing that SI_3* is true*.

After providing a detailed description of the GCs, we are now in a position to state Gettier's *dilemma* for the JTB Thesis: *If the JTB Thesis provides us with a correct analysis of knowledge, then we should be willing to accept that in GC_1, what we have is a genuine case of knowledge since the three conditions in the analysans have all been satisfied. However, in GC_1, most of us are not willing to accept that Smith knows that SI_2 is true* (i.e., *The man who will get the job has ten coins in his pocket*). The reasons that lend support to this refusal to say that Smith knows that SI_2 is true are the following: (1) *SI_2 is true in virtue of the number of coins in Smith's pocket*, (2) *Smith does not know the number of coins in his pocket*, and (3) *Smith's belief that SI_2 is true is based on counting the number of coins in Jones' pocket* "whom he falsely believes to be the man who will get the job."[36]

As might be expected, something similar may be said about Smith's case in GC_2. Most of us are not willing to accept that in this case, Smith *knows* since: (1) *SI_3** (*Either Jones owns a Ford, or Brown is in Barcelona*) *is true in virtue of where Brown is*, (2) *Smith does not know where Brown is*, and (3) *Smith's belief that SI_3* is true is based on his belief that Jones owns a Ford* (a belief which turns out to be false). For Gettier, GC_1 and GC_2 demonstrate that the JTB Thesis is false and must therefore be rejected.

Before ending this section, let me articulate an important point regarding the *proper* interpretation of the JTB Thesis. It is important to note that the JTB Thesis is not concerned with knowledge in general, but only with a specific (or a limited) kind of knowledge: propositional knowledge. By "propositional knowledge," we mean "the knowledge of facts or true propositions."[37]

If the JTB Thesis is concerned with propositional knowledge (as we mentioned earlier), then the relevant *relation* that we want to understand (or explain) is the relation between a *subject* (or an *epistemic agent*) S and a *proposition* P (as stated in the analysandum). To be more specific, what

[36] Ibid.

[37] Noah Lemos, *An Introduction to the Theory of Knowledge* (Cambridge: Cambridge University Press, 2007), 2.

we want to understand is what it means for S to know that P. To have a clearer view regarding the aforementioned relation, Noah Lemos, for instance, tells us that "propositional knowledge is a relation between a subject and a *true* proposition."[38]

Aside from specifying the relevant relation involved in propositional knowledge (i.e., the relation between a subject and a true proposition), we also find, in Lemos' discussion, the *usual* way by which we distinguish between: (1) *believes* (that P) and (2) *knows* (that P).[39] Using the formulation that we discussed earlier, for example, there is a general consensus among contemporary philosophers that S believes that P does not imply that P (is true), whereas S knows that P implies that P (is true).[40]

In our discussion earlier, we said that for Lemos, the relevant relation involved in propositional knowledge is the relation between a subject and a true proposition. Admittedly, this specification of the relevant relation is still far from being complete. To compensate for this, we can turn to Linda Zagzebski's views on the matter. While Zagzebski agrees with Lemos on the point above regarding the relevant relation involved in propositional knowledge, it must be noted that she *adds* an important aspect that must be taken into consideration if we want to arrive at a proper understanding of propositional knowledge. For Zagzebski, "knowing" involves two items: (1) a *conscious subject* and (2) (a portion of) *reality* to which (1) is related directly or indirectly.[41] Here, Zagzebski argues that not just any relation between (1) and (2) will do. After all, "knowing" involves a person having what she calls "cognitive contact with reality."[42] To achieve this, Zagzebski turns to propositions: "Propositions are either true or false, but only true propositions link the knower with reality in the desired manner…In a state of knowledge the knower is related to a true proposition."[43]

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[38] Ibid. [Emphasis in the original]

[39] In our current terminology, "believes" and "knows" are called "propositional attitude expressions." Other examples of propositional attitude expressions include the following: "desires," "wishes," "says," "doubts," etc. For a comprehensive discussion on the topic, see Mark Richard, "Propositional Attitude Ascriptions" in *The Blackwell Guide to the Philosophy of Language*, eds. Michael Devitt and Richard Hanley (Oxford: Blackwell Publishing Ltd., 2006), 186-211.

[40] I would like to thank Professor Ciriaco M. Sayson, Jr. for pointing out a potential problem in my discussion of this point in the earlier version of this manuscript.

[41] Linda Zagzebski, "What is Knowledge?" in *The Blackwell Guide to Epistemology*, eds. John Greco and Ernest Sosa (Massachusetts: Blackwell Publishers, Ltd., 1999), 92-93.

[42] Ibid.

[43] Ibid.

As can easily be seen in the discussion above, Zagzebski recognizes that *reality* (or a portion of it) must also be included in the equation. True propositions, therefore, function as a kind of *bridge* that links together the knower and reality "in the desired manner," to use Zagzebski's words. From a purely *explanatory* standpoint, we can easily agree that this idea is correct, especially in cases which involve our knowledge of *empirical propositions*. For example, let us assume that S knows that P (where "P" is some empirical proposition). S knows that P entails P (or that P is true). Now, if P is true, there must be something which *makes* P true. In a single word, this something may be called the "world" (or if we prefer, "reality").[44]

At the beginning of this section, I mentioned that the JTB Thesis is not concerned with knowledge in general, but only with propositional knowledge. Take note that Gettier himself recognizes this point, and this may easily be confirmed in his own formulation of the JTB Thesis. In addition, Gettier says that the GCs demonstrate that the JTB Thesis "does not state a *sufficient* condition for someone's knowing a given proposition."[45] If this is the case, it is only reasonable to remind ourselves that the GCs and their corresponding achievements should only be limited to cases which involve propositional knowledge (or if we like, to what it means for an epistemic agent S to know a proposition P).[46]

Before we end this section, let me articulate some salient *points* on the widely recognized achievements of the GCs (primarily as successful refutations of the JTB Thesis). The *first* point has something to do with the *extent* to which we can rely on *common sense* as a guide to conceptual correctness. Indeed, one may say that one of the *strengths* of the JTB Thesis is that it seems to agree with our common sense views (or our *basic*

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[44] In our current terminology, this idea corresponds to what we call a "truthmaker" which can be expressed in a number of ways. For instance, John Bigelow explains that the *truthmaker axiom* requires that "when something is true, there must be something in the world which makes it true." For a detailed discussion, see John Bigelow, *The Reality of Numbers: A Physicalist's Philosophy of Mathematics* (Oxford: Oxford University Press, 1988), 125. Other philosophers, like Julian Dodd, calls it the "truthmaker principle" which states that "whenever something is true, there must be something whose existence guarantees its truth." See Julian Dodd, "Is Truth Supervenient on Being?" in *Proceedings of the Aristotelian Society* 102 (2002): 69-85.

[45] Gettier, 123. [Emphasis in the original]

[46] I need to stress this point because sometimes philosophers tend to forget the *limitations* of the GCs in relation to their main target: the JTB Thesis. Sometimes, philosophers also tend to be *ambiguous*, perhaps unconsciously, regarding the GCs, and this may affect their appraisal, not only of Gettier's achievement, but also of the GCs and their rightful place in contemporary epistemology.

intuitions) about knowledge.[47] However, and as may be seen from the discussions earlier, the JTB Thesis has been shown to be unsatisfactory as an analysis of knowledge using contemporary philosophy's, in particular, analytic philosophy's standards.[48] One might therefore say that *in philosophical contexts, a concept's agreement with common sense is not a sure guide to its correctness*.

The *second* point has something to do with our *view* of what a "philosophical" work consists in. In my estimation, the fact that many philosophers consider the GCs as successful refutations of the JTB Thesis provides a strong indication of how most of us, especially in the academe, view what it is exactly that we do when we do philosophy. For a significant number of people, this means engaging in *logical* and *conceptual analysis*. As I see it, this way of viewing what a philosophical work consists in is of crucial importance as to why many of us in the academe are not simply persuaded, but more accurately, *compelled*, to accept (the correctness of) the GCs along with their unsettling result for contemporary epistemology: that the JTB Thesis is false (and must therefore be rejected).[49]

4. The Gettier Problem

In the earlier sections of this chapter, I mentioned that the Gettier Problem is a direct consequence of *two* things: (1) the JTB Thesis and (2) the GCs. Such being the case, a proper understanding of the Gettier Problem entails a prior understanding of both (1) and (2). So far, we have discussed (1) and (2) above. In the process, we were also able to trace the *origin* of the JTB Thesis, *link* together the problem of knowledge in ancient philosophy and contemporary epistemology, and *limit* the scope of the JTB Thesis and the GCs to cases that involve propositional knowledge. In addition, we were

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[47] Perhaps this aspect can help explain why the JTB Thesis remained virtually *unchallenged* for more than two millennia (i.e., since the works of philosophers like Plato have been first documented).

[48] While there is no single, unified, and universally accepted set of doctrines that defines "analytic philosophy," Scott Soames points out that "there are certain underlying themes or tendencies that characterize it," the most important of which has something to do with "the way philosophy is done." Soames maintains that analytic philosophers are committed to "the ideals of clarity, rigor, and argumentation." For a detailed discussion, see Scott Soames, *Philosophical Analysis in the Twentieth Century Vol. 1: The Dawn of Analysis* (New Jersey: Princeton University Press, 2003), xiii.

[49] Of course, the result can be stated in another way: *Knowledge is not (simply) justified true belief.*

also able to specify the relevant *relation* that is involved in our attempt to understand propositional knowledge (i.e., following Zagzebski, the relation between the knower and reality *via* true propositions). At this point, the stage is therefore set for discussing the Gettier Problem.

In Section 1, I mentioned that we usually think that we have a clear understanding of the Gettier Problem, what it means, and what it entails. In the same section, I also mentioned that the Gettier Problem is much more complicated than our usual understanding of it. In this section, I will explain the underlying reason as to why I think that this claim is correct.

Let us begin our discussion with the *usual* way by which we understand the Gettier Problem. When we talk about the Gettier Problem (hereafter GP), we are referring to a very specific and usually technical problem in contemporary epistemology: *the problem of specifying the conditions that are individually necessary and jointly sufficient for knowledge in the face (or in the emergence) of the GCs.*

From the general description of the GP above, we can correctly say that (and given the widely acknowledged success of the GCs as refutations of the JTB Thesis) Gettier was able to *change* the landscape of contemporary epistemology by *adding* an important *requirement* that any correct *definition* (or *analysis*) of knowledge must be able to satisfy: *They must be immune from the GCs and the accompanying problems that they pose.*[50] In an important sense, we may therefore say that at this point in time, the GCs have become so influential that they are "generally being regarded as decisive or near-decisive tests"[51] for theories of knowledge *à la* JTB Thesis after the publication of Gettier's short but influential paper. It is also for this reason that contemporary philosophers also refer to the GP as "Gettier's challenge," although this time around, the challenge is not merely directed at the JTB Thesis, but also at *any* definition of knowledge that complies with its most fundamental tenets.[52] To further this point, Guy Axtell describes Gettier's challenge as the task of producing "an *analysis* of

[50] Since the GCs have been heavily replicated, we can also say that any satisfactory definition of knowledge must also be *immune* from these *Gettier-type counterexamples*.

[51] Stephen Hetherington, "Epistemology's Past Here and Now," in *Epistemology: Key Thinkers*, ed. Stephen Hetherington (New York: Continuum International Publishing Group, 2012), 23.

[52] Recall that the JTB Thesis is committed to a particular conception of analysis (i.e., analysis as decomposition).

knowledge with true belief and justification as conditions, plus some further condition specifically to handle Gettier cases."[53]

The GP, to my mind, is a notoriously difficult problem to solve[54] and there is ample evidence that lend support to the truthfulness of this claim. Fortunately, the process by which we can verify its truth is not difficult to find. For example, this may be done by conducting a *comprehensive review* of the various solutions that have been offered (so far) by contemporary philosophers to the GP.[55] From such a review, we can easily recognize an emerging pattern: *For each proposed solution to the GP, there exists a problem that the particular solution in question fails to adequately explain (or address)*. In other words, the proposed solutions to the GP are themselves prone to certain difficulties of their own. Thus, at this point in time, no one can easily claim, in the absence of an additional and conclusive argument, that the GP has been solved to the satisfaction of the whole (or even a majority of the members of the) philosophical community. To my mind, this result is *sufficient* to establish the truthfulness of the claim above regarding the difficulty of the GP and how it seems to easily avoid the various solutions that have been offered for it so far. But if we still want additional evidence, we can cite, for instance, Paul Moser's *expert testimony* on the difficulty of the GP. He writes: "The history of attempted solutions to the Gettier problem is *complex* and *open-ended*; it has not produced consensus on any solution."[56]

At this point, we can say that we were able to lay the *groundwork* that is necessary to establish the main claim of this chapter. *If I am correct, our inability to solve or dissolve the GP may be explained by the fact that it allows for at least two descriptions (or interpretations).* For brevity, let us simply use "GP_1" and "GP_2" to refer to these two closely related but still different descriptions of the GP.

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[53] Take note, however, that in his paper, Axtell, questions this construal of Gettier's challenge and tries to offer an alternative. He recognizes, however, that the description above is the "received view" of Gettier's challenge. For a detailed discussion, see Guy Axtell, "Virtue-Theoretic Responses to Skepticism," in *The Oxford Handbook of Skepticism*, ed. John Greco (Oxford: Oxford University Press, 2008), 568. [Emphasis added]

[54] On the assumption, of course, that it can, in fact, be solved.

[55] I will do this task in Chapter 2 of this book.

[56] Paul Moser, "Gettier Problem" in *A Companion to Epistemology*, ed. Jonathan Dancy, Ernest Sosa, and Matthias Steup (Oxford: Blackwell Publishing, Ltd., 2010), 396. [Emphasis added]