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Knowledge is true belief based on argument, -- Plato, *Theaetetus*, 201 c-d

"Is Justified True Belief Knowledge" -- Edmund Gettier, *Analysis* 23:121-123

INTRODUCTION

Firstly, I want to clarify the methodological aspects of my future writing. That is to say, I will elucidate the way in which I will approach this philosophical problem. In the beginning I want to state the fact that I am an exponent of the so-called philosophical analysis, as we can find it predominantly and eminently in the analytic tradition. Of course, there are metaphilosophical assumptions in this statement, i.e. the belief that we can gain insight by analysing concepts, by clarifying their meaning and the way they function in our belief system -e.g. conceptual analysis from G.E. Moore to Ernest Sosa.

So, the topic we are dealing with situates itself into the branch of philosophy called epistemology. Epistemology, generally speaking, is the study (logos) of knowledge (episteme). Xenophanes was the first to make a terminological distinction between *episteme* and *doxa*. As *doxa* is a belief formed unreliably and about the world of phenomena, *episteme* is the belief that instantiates into knowledge. There was a long tradition of thinking that we can derive the natural phenomena from some ultimate principles of reality. This is the etymology of the word.

Today epistemology has two functions. The first one is the one trying to overcome the problem of skepticism. The second one, as Kant would call it: critical, investigates the source, nature and the justification of our knowledge. It tries to search for the condition of possibility of our knowledge. It does that by critical analysis, creation of examples and counterexamples, and normative construction of theories.

Now it is clear that Plato's approach is to bring the so-called necessary and sufficient conditions for knowledge. This enterprise that he excellently represents is a problematic aspect to even our contemporary epistemologists. Historically, great philosophers like Leibniz exemplified knowledge with an intensional definition much like Plato's. The beginning of the analytic epistemology is marked by an attention to clarify the notions we intuitively involve into a definition of knowledge, e.g. Russell's theory of knowledge as it can be seen in *The Problems of Philosophy*.

I made room for the theme and also for Plato's approach, I want to enter a bit in his definition. As I said, Plato tried to give necessary and sufficient condition for knowledge. His analysis is called 'the traditional tripartite analysis of knowledge', as it identifies knowledge with true belief based on argument. This is the problem of this paragraph published by Edmund Gettier in a remarkably short article in 1963 called "Is Justified True Belief Knowledge?". In that article he brings two counterexamples to, at the moment, principal view of the knowledge.

MY THESIS

But before that, I want to clearly formulate the thesis that I will argue for. This is a three point

thesis:

- a. I state that analysing the concepts involved in Plato's theory will give us epistemological insight.
- b. I state that Plato's analysis is at least incomplete and therefore wrong.
- c. I state that the problem Gettier puts it's a genuine difficult philosophical problem.

As I will progress with the essay I hope you will see how each of these points is advocated and made more clear.

ANALYSING THE CONCEPTS

Before we can meet Gettier's problematics, I will get a bit more deeper into Plato's analysis.

For Plato, knowledge must fulfill three requirements. First of all, only if you have a belief you can have knowledge. It is not an easy task to identify what a belief needs to be. There are several approaches.

An approach to the problem of belief would be that beliefs are behavioural dispositions. That is to say that in order to have a belief you need to behave in a certain way. For example, if you are in a state of pain you would behave consequently. The problems with the behavioristic accounts are easy to catch, e.g. the fact that not all beliefs orientate our behavior in a certain way, or that giving ourselves to this research projects we won't conclude anything phenomenologically about our beliefs.

And then, there is the mentalist approach that says that belief is a mental state. This is an important distinction because we will use it in our talk of justification (for Plato, argument). Beliefs are in this way propositional attitudes or in some contemporary research programs -speech acts. At this point I have introduced the term 'proposition'. Is this important for the study of knowledge? I believe it is, as we tend to use the word 'knowledge' with different semantics. From Plato to us, it is said that we can only know what is de facto. We can't know a falsity. When I will get to the truth condition I will further investigate that. But even with that distinction being made, there are several types of knowledge we usually think we possess. There is the so-called 'knowledge how', that is a procedural knowledge, e.g. knowing how to ride a bike. This is a knowledge that we -learn-, as it lays in some dispositional attitudes. Even when we don't ride a bike we still know how to ride a bike. This type of knowledge is of a highly interest for psychologists and philosophers, but it is not the type of knowledge we are now interested in. Then, there is a 'knowledge by acquaintance', or by familiarity, you can know how to get from X to Y by car. And then there is the knowledge that was called the knowledge by excellence - the propositional knowledge. This can be identified in the simple scheme 'S knows p', where S stands for the epistemic agent and p for the proposition known. We need to distinguish propositions from sentences. A proposition, simply put, expresses the meaning of a sentence, i.e. a proposition being an abstract object. Two different sentences, i.e. sentences from different languages, can express the same proposition. The sentence 'The cat is on the floor' expresses the proposition that the cat is on the floor.

Getting back to beliefs, we can say that they are propositional attitudes, as they are a first step toward the epistemic goal of knowledge. Under this clarification, Colin Redford confronts us with an example. Suppose Allan is having a history paper. He is asked 'where did X happen?'. He doesn't think he knows the answer but he nevertheless answers it correctly. His answer is something like 'X happened in Y'.

He doesn't actually believe X happened in Y. Colin says that his answer is an instance of knowledge because he learned that fact in a history class and he had a tardive memory of that. This view is highly controversial, and a main argument against it is that Allan doesn't have any justification for the respective proposition. Also this debate rises another question that we will deal with when we will arrive at the justification component.

Plato's conclusion, i.e. and my personal conclusion too, is that knowledge necessitates belief. Ofcourse we could get more deeply into what are belief and how they function within our cognitive abilities but I think that we could take a next step towards truth. Plato clearly says that 'Knowledge is true belief based on argument'. The important component of this is the 'true belief'. We sketched an idea of what a belief might be and how it could let to possession of knowledge. Plato's second component is not cotroversial among contemporary epistemologist. It is said that propositional knowledge is knowledge *de facto*. That means that we can't know a false proposition. Is how our construction of the concept of knowledge works. (A question I will not deal with in this essay is if intuitions are a genuine source of philosophical argument, and we can see a debate in the analytic tradition of philosophy between intuitionists and experimentalists and also methodological naturalists.) It is a common approach towards analysing knowledge proposing a truth functionally condition, that is to say that we can ascribe knowledge only after we ascribed truth. Propositions become beareres of truth. (What is Truth is not a question we need to answer in order to progress in our analysis. Ofcourse, there might be a fundamental presupposition that when we talk about truth we talk about a relation between mind and reality, a sort of representationalist correspondence theory of truth. It is not the case that we need to adopt a representationalist position.)

Hazlett, unorthodoxly, states that 'know' is not a factive word. He make a semantic distiction between the word, i.e. to know, and the epistemic state of knowledge. He certainly believes knowledge needs truth but he also thinks that when we casually use epistemic terms, to know doesn't imply to be true. He gives the example that everyone *knew* that ulcerus was provoked by stress until two Australian physicians discovered that it's produce by a bacteria. So he makes this statement about how we use epistemic terms and not how the state of knowlege is.

Another argument contrary to the truth condition is another well know one. We say that we know classical newtonian mechanics. Also we know that newtonian mechanics is wrong at a deeper level, as quantum mechanics and the special theory of relativity show us. I believe we can solve this problem of knowing classical mechanics, even if it isn't true. When we say we know it we actually knwo in a familiarity type of knowledge. As we don't have factual, propositional knowledge of newtonian physics, but we are familiar with that theory, we can succesfully use it in some cases and in some not.

Hazlett said that two physicians *discovered*. This word has some serious epistemological implications. Plato said that the right combination for knowlege is to achive it by argument. We now use the word 'justification'. I want to show the fact that a true belief is not necessary an instance of knowledge. What I am thinking about is another very important field of research - epistemic luck. True beliefs need to be formed in a certain way, they need to be situated in a specific epistemic area: that is the are of justification. A lucky guess can never be made a knowlege. Maybe it isn't clear enough in what direction I am leading, but I need to say that I reached a critical point. We impose justification on our beliefs so they can become instances of knowledge, so they aren't based on luck. I want to further distinguish between types of knowledge and to show wich one is of current interest.

This distinction is not a problem to be solved, as it just clarifies our understanding. There is the so-called *propositional justification* and also *doxastic justification*. I will briefly explain each of them. When we say propositional justification we refer to whether there is enough warrant for holding a certain belief. Doxastic justification, on the other side, tells us if our beliefs are adequately based on our propositional justification. We are certainly interested in the latter one, the doxastic justification. A simple example might come handy. Let's assume that Alexandra has sufficient evidence for the proposition that her neighbour is dangerous. He saw him doing dangerous stuff and so on. She also forms the belief that her neighbour is dangerous but only after she sees a black cat. Since forming beliefs on superstitions is not an adequate epistemic method of forming beliefs, we can't say she knows her neighbour is dangerous.

When I discussed the nature of beliefs, I stated that they are (or might be) mental objects of a propositional sort. There is an intense debate over two different approaches to knowledge and justification. One is a traditional approach (I will call it TA) and another one is a more recent one (NTA). TA says that to have justification for a certain propositional belief means to have certain evidence for believing that. The justificational factors are of that sort that they enable us to ascribe truth to a proposition. In that sense, TA tends to be *internal*, so that the evidence we have for believing something is of a mental state - so it also tends to be mentalist. Another aspect of this approach is that some of its exponents believe that we have a certain access to this 'mental evidence' - this is called the luminosity aspect, i.e. when we have justification for p, we know that we have justification for p.

The NTA says that we don't need evidence of a mental sort to instantiate knowledge. We need a proper method of justification that properly probabilifies that proposition. That is, believing a certain proposition in different times, the method we imply in believing it, in most cases, 'makes' the belief true. This is an *externalist* theory. As I exemplified it, it's also a type of *reliabilist* theory of justification. The famous case of Brain in a Vat proposed by Hilary Putnam to prove his meaning externalism might come in handy. Suppose John is a brain in a vat, i.e. an evil scientist took his brain and put it in a vat making his subjective experiences the same as before the event; he is connected to a computer that makes him feel like nothing changed. An internalist would believe John would be justified in believing he doesn't have hands, as he has the proper subjective experience, that is his mental evidence for that proposition. An externalist, on the other hand, wouldn't believe his belief is justified, as it (a reliabilist might say) is not formed using a reliable method (the sensorial faculty of vision).

I have gone a little bit into the concept of justification to see its ramifications and maybe to grasp a little of how epistemologists see these aspects in our contemporary times.

THE GETTIER PROBLEM

I've made a quick demonstration of what might mean to state a tripartite theory of knowledge. For Plato, knowledge requires belief, truth and justification. The final component of knowledge, the justification we have, should have makes us sure that we have knowledge and we aren't in a case of epistemic luck. Edmund Gettier, the author of "Is Justified True Belief Knowledge?", some think it is the single most important paper in epistemology in the second half of the 20th century, gave some counterexamples to this traditional analysis of knowledge. Suppose Michael has enough evidence (and he formed his belief epistemically adequate) for the proposition:

1. John owns a Ford.

He also infers the following proposition, as he adequately belief (1): [Gettier believes we can have justification for a false statement (a form of fallibilism).]

2. Either John owns a Ford or Brown is in Barcelona.

As his first statement is justified Gettier believes that for this future proposition he will have justification in believing it. (1) is false, but as it happens (2) is correct. John didn't had a clue that Brown is in Barcelona. Accordingly to the tripartite analysis of knowledge John is justified in believing (2). This would sound really counterintuitively as is another example of epistemic luck.

A large and vast literature appeared post-Gettier tried to show that the classical analysis is wrong and we either have to drop it at all or to propose another condition that would 'de-Gettierise' the beliefs. So it followed an era of JTB (justified true belief) + X, where is the further condition that would get us out of the epistemic luck. Those proponents believed that the JTB analysis is on the right track.

I will further investigate wheater or not we are on the right track using the JTB+X strategy by sketching some of the conditions that were proposed in order to solve the so called 'Gettier problem'. I believe at this point we've reached the core of the problem that would, from my point of view, justify my second thesis, and Gettier's also, that justified true belief is not knowlegde.

No false lemmas

The primary condition that was proposed is called the 'no false lemmas' condition. We may think that the first Gettier's example shows us that we can't infer justified propositions from a false proposition, as in inferring (2) from (1). This is a clear cut solution to the example I gave but I think that it isn't a genuine solution to the Gettier problem. Consider the following examples:

John is sitting on a bench, enjoying the grass field that's in front of him. He sees an object not to far away, so that we can say he formed reliable his future belief. The object he sees looks like a dog, but it's not a dog, it's robot dog. John didn't knew that. The robot dog looks just like a dog. So he believes:

1. There is a dog on the field.

This is a justified belief, but not a true one. We can built what Linda Z. calls a classical Gettier example. Suppose there is an actual dog on the field, but John attention wasn't directet on the dog. Now (1) is correct, and there isn't any inference from a 'false lemma'.

Consider also this 'Barn Field' example:

There is a county where there are shown only some fake front parts of barns and from a single point of view you can be delluded to think that there are barns in front of you. Jim drives the road from that single point of view where he can see some fake Barns. He believes that he sees real barns. He doesn't. The proposition he posseses is false. In that filed of fake barns there is actualy a real barn that looks exactly like the other ones. When he drives near by this bar he also believes that there is a barn in fron of him. The belief is produced epistemicly adequate. Truly, the no false lemmas condition can't solve the

Gettier problem.

The causal account and Dretske's reliabilism

Alvin Goldman proposed a condition that impose that our beliefs are causally produced by the proposition we believe. This solves the robot dog example, but seems to fail on the barn example as Jim makes his mind about that specific barn by looking at it.

Fred Dretske also proposed a form of reliabilism, a sort of one that replaces justification with the proper reliable method of forming beliefs. This is another strategy for realibilists. But as I stated reliabilism is mainly a theory of justification. Fred Dretske thinks that his condition will solve the Gettier problem and also will be a success in attributing knowledge states to animals as they are bearers of information, that have cognitive mechanisms. I believe the barn example shows that Fred's reliabilism doesn't work on Gettier's problem.

A modal condition

I will briefly sketch a modal condition that is supposed to solve Gettier's problem as he formulated it in "Is Justified True Belief Knowledge?". It is attributed to Nozick and is called the sensitivity condition:

S's belief in p is sensitive, if and only if, if p would have been wrong, S wouldn't believe p. [In predicate logic form: $\Box p \rightarrow \Box B(p)$. \Box stands for the counterfactual operator and $B(x)$ for the belief predicate]

Considering a Lewisian semantics for counterfactual we would say that S's belief is sensitive, iff in the closest possible world in which p is false, S wouldn't believe p. This is a condition that makes sense of our intuition that we should track the truth of propositions in possible scenarios. This seems to solve even the hardest examples - the fields of barns one. As in the closest world in which Jim believes that there is a barn, the proposition he believes would be false. So his state is not sensitive.

Now I want to give an argument, similar to that of Saul Kripke, that would show that this condition won't work on another constructed case and so confirming my thesis that the problem Gettier imagined is genuinely problematic. Suppose the old barn case but also the fact that fake barns are painted green and the only (real) barn in the field is painted red. Jim doesn't know that fact as he believes that there are all barns, different painting. Let's now test Nozick's idea. We have two cases: one with a green (fake) barn and one with a red barn. Jim's belief that there is a red barn in front of him is sensitive as in the closest possible world in which that proposition is false there isn't a red barn in front of him (and Jim would not believe that there is a red barn in front of him)

Jim's belief that there is a barn in front of him is not sensitive as in the closest possible world in which the proposition that there is a barn in front of him is false and Jim would still believe it.

Another argument is that of DeRose called the 'abominable conjunctions' argument. Suppose the brain in vat case where the subject is deluded to believe that everything is normal. This case produces the abominable conjunction that the subject can't know if he's a victim of a brain in a vat case but he can know that he has hands and therefore he's not a brain in a vat. I believe that this argument I have proposed are pretty straightforward and enough to disprove Nozick sensitivity condition.

EPILOGUE

I believe that I have made my case and I believe also that my arguments were, to an extent, convincing and clear. I hope I introduced the reader to a small part of the vastness of epistemology. I've tried to show that the paragraph introduces us to the subject of knowledge. I've briefly discussed the etymology of the word 'knowledge', the fact that Plato proposed a very important and influential tripartite theory of knowledge, trying to bring necessary and sufficient conditions for its existence. In analysing the components of this traditional approach towards epistemological analysis I hope I've brought some insight into the subject. We can see that these components of Plato's theory have deep ramifications and are open to a serious, rigorous and critical examination. For example, T. Williamson believes we can't give an intensional definition of knowledge by naming structural components but we can gain understanding and grasp a bit of what it means to have knowledge. I want to see what it may mean to have a belief, for a belief to be true and lastly to possess justification for the belief you hold.

The ingenuity of Gettier showed us, by the elegant means of creating mental experiments (history of science and history of philosophy made clear the fact that mental experiments can bring insight), that the JTB account is wrong. This is one of my theses for this essay. I've exemplified Gettier's case from where I was able to reconstruct different cases that have made the same point: the traditional account is wrong. This was an important point in the history of philosophy. From there, as I tried to show, philosophers tried to solve the Gettier problem. The majority of strategies were designed to show that a further condition can solve this problem. I have provided arguments that the problem is genuinely difficult to solve. I've reached the sensitivity condition proposed by Nozick. There are contemporary philosophers that believe that even the sensitivity condition fails there might be the case that the subject must be in a modal relation with the believed proposition. I want to let the discussion open and to tell that modal conditions of great actuality are more refined than Nozick's one and they might bring a little optimism in the talk, e.g. the (more complex) safety conditions of Williamson, Pritchard and Sosa or the virtue epistemology of the last two of them - I didn't talk about their each individual condition and I want to make the reader feel curious about the possibility of the case that those conditions might solve the Gettier problem.

My goal was to show that epistemology is an alive branch of philosophy that engages the reader, that has come to a fairly high degree of formal sophistication. The arguments provided by the great philosophers are examples of distinctions of designed discursive arguments.

