And Just What is That Supposed to Mean?
Some Thoughts on the Verification Theory of Meaning

MILES GRANDIN
November 1995
Class: Philosophy of Language

Moritz Schlick advocates a particular version of the verification theory of meaning. While Schlick would not easily allow anyone to classify his position on meaning as a theory, to call his position anything else would be to beg the question. Since his position is a theory, it can and ought to be tested as other theories are tested. Specifically, one considers a consequence that would result if the theory were accurate. If that consequence does result, then this is confirming evidence which supports the theory. However, if that consequence does not result, then this is confirming evidence which undermines the theory. With this approach in mind, I take the following claim to be true: if Schlick's verification theory of meaning is an accurate account of meaning, then his theory must give an adequate account of the meanings of non-observation sentences. If his theory cannot give an adequate account of the meanings of non---observation sentences, then his theory is a failure. In this paper I will argue that Schlick's theory fails. However, I will go on to argue that, with an adjustment of epistemology, verificationism can give an adequate account of the meanings of non-observation sentences and, hence, still successfully maintain that the meaning of a sentence is, indeed, found in the conditions that verify that sentence.

With these two conclusions as the ultimate destination, this paper's structure will be as follows. First, I will present an abstraction of Schlick's argument in favour of his version of verificationism. Second, I will briefly explain why his theory demands a reductionist account of the meanings of non-observation sentences and why this account is not adequate. Then I will point to the one premise in Schlick's abstract argument that leads his theory astray and how an adjustment of epistemology allows the verification theory of meaning to overcome the difficulties which Schlick's version has.

Schlick's position can be represented by the following abstract argument:1

Premise 1: for all X, a person can have knowledge of X only if X being true' makes some observable difference in the world as compared to X being false'.

Premise 2: a person understands a sentence if and only if that person knows what the sentence means.

Premise 3: a person knows what a sentence means if and only if that person knows the rules for how that sentence is to be used.

Premise 4: there are two sorts of rules for how a sentence is to be used:
(i) the person must be able to identify the sensory experience which should bring them to assent to the sentence; and
(ii) the person must be able to distinguish this sensory experience from some other which would bring them to dissent from the sentence.

Conclusion: Hence, the meaning of a sentence is knowledge of how the sentence is or would be empirically verified. This is also to say, every meaningful sentence is essentially empirically verifiable.

An example will help to clarify Schlick's position. I understand the sentence "That is blue". In other words, I know what the sentence means. If I know what a sentence means then I must know the rules for how it is to be used. In fact, it seems that I do know these rules. I know that when I look at something and receive a certain sense experience, I will assent to the sentence "That is blue". I also know that if I look at something and do not receive that certain sense experience, I will dissent from the sentence. Hence, Schlick would conclude, I can say that I know what the sentence means only because I know how the sentence would be empirically verified.

Given Schlick's position, to say "That is blue" is basically nothing more than reporting a sense experience. If I utter this sentence, I am simply reporting that when I look a "that" (whatever that is), I observe the particular sense experience which should be called blue. This is why the sentence "That is blue" is called an observation sentence.

But what about non-observation sentences? Consider this sentence: "This fence is sturdy". It is not an observation sentence because there is no obvious direct sense experience which should be called the experience of sturdiness. Even so, I know what "This fence is sturdy" means. And if I know what the sentence means, then, according to Schlick, I know how this sentence is empirically verifiable. To say a sentence is empirically verifiable is simply another way of saying that there is an difference in the world between the conditions under which I will assent to the sentence and the conditions under which I will dissent from the sentence. So, Schlick's theory has to explain how I know what the sentence "This fence is sturdy" means by explaining what is different in the world when the sentence is true as compared to when the sentence is false. The only way to tell there is a difference in the world is to observe (or experience) a difference. Hence, Schlick's theory demands that the meanings of all non-observation sentences must be reducible to observation sentences.

The first major problem with Schlick's theory crystallizes when one considers how to translate a sentence like "This fence is sturdy" into an observation sentence. The best attempt at translation would be to claim that the translation sentence "If you push hard on the fence, it will not fall over" means the same as the sentence "This fence is sturdy". The translation sentence has the conditional form of "if p, then q". Logic dictates that if the antecedent of a conditional is false (i.e. "p" is false), then the entire sentence must be counted as true (i.e. "if p then q" is true).

Given this information, suppose I come across a rickety old fence which is missing the occasional board, wobbles in the wind and is generally in poor repair. Suppose further that because of the fence's condition I do not push on it. In these circumstances, I along with any capable language-user would assent to the sentence "This fence is not sturdy". Furthermore, by assenting to this sentence, I

would mean something entirely opposed to the sentence "This fence is sturdy". In other words, I would say that the sentence "This fence is not sturdy" is true and that the sentence "This fence is sturdy" is false. Now, recall that the sentence "This fence is sturdy" and the sentence "If you push hard on the fence, it will not fall over" are supposed to mean the same thing. In my supposed scenario I did not push on the fence, so the antecedent of the translation sentence is false, making the entire sentence true. At this point it is possible to utter two sentences that supposedly mean the same thing, where one is true and the other is false. (i.e. the sentence "If you push hard on the fence, it will not fall over" is true and at the same time the sentence "This fence is sturdy" is false). Clearly, this is a problem created by attempting to translate a non-observation sentence into an observation sentence. This example is evidence that Schlick's theory of meaning cannot give an adequate account of the meanings of some non--observation sentences.

There is problem that comes from holding Schlick's position that all non-observation sentences must be reducible to observation sentences. This problem stems from any attempt to translate scientific laws into observation sentences. Consider the fact that at least a rudimentary understanding of gravity is required if one is to pass a high-school physics course. As noted above, a person can understand a sentence if and only if that person knows what the sentence means. Furthermore, a person can know what a sentence means only if that sentence has meaning. Given these facts, the following non-observation sentence has meaning: "Every mass is gravitationally attracted to every other mass". Since this sentence has meaning, Schlick's theory demands that it be reducible to observation sentences. His theory must explain what conditions exist in the empirical world that make this scientific law true. The problem is that no such conditions exist. The sentence "Every mass is gravitationally attracted to every other mass" is not verifiable by appeal to empirical grounds alone.

This scientific law is not verifiable by appeal to empirical grounds alone because of the problem of induction. The only way to empirically test a law like this one is to look at the world. Scientists have, of course, done this and they wind up with what is often called overwhelming evidence to support the sentence "Every mass is gravitationally attracted to every other mass". An abstraction of their results can be broken down as follows.

Premise 1: A is a mass and is gravitationally attracted to another mass B (and visa versa).

Premise 2: A is a mass and is gravitationally attracted to another mass C (and visa versa).

Premise n: ...

Conclusion: Therefore, every mass is gravitationally attracted to every other mass.

Here, according to Schlick's theory, the premises, P1 - Pn, are the observation sentences which translate the non-observation sentence, C, "every mass is gravitationally attracted to every other mass" into empirically verifiable claims. But no matter how many examples one finds in support of the universal generalization, unless one looks at every mass in the universe (which cannot be done), the universal generalization does not mean the same as all the premises put together. That is to say, you cannot accurately translate a universal generalization into observation sentences. Since, we use

many meaningful universal generalizations and Schlick's theory cannot give an adequate account of their meanings, we must conclude that this is a second major point of failure for his theory.

Of course, Schlick could object to my treatment of the problem of induction as it relates to his theory. He might suggest that all those observation sentences, Pl -- Pn, provide any reasonable human being with enough empirical evidence to assent to the sentence "Every mass is gravitationally attracted to every other mass". However, one simple question reveals the problem with this objection. Why is anyone entitled to conclude that if all the masses we (or some scientist) investigate are gravitationally attracted to each other, then every mass we did not investigate behaves in the same manner? His only reasonable reply to this question would be to say that we know that all happenings in the universe occur according to some law or another and that these laws are not arbitrary; rather, if they hold true for part of the universe, then they hold true for the rest of the universe. Essentially, this is to add an extra premise to the inductive argument, let us call it Pn+l. So, according to Schlick's theory it would have to be included in the group of sentences offered as the translation of the non-observation sentence "Every mass is gravitationally attracted to every other mass". But this added premise, Pn+l, is itself a universal generalization and, hence, a non-observation sentence open to the same problems as the universal claim about gravity. Clearly, this objection to the problems induction creates for Schlick's theory fails and, hence, so does his theory.

While the objection given above fails to save Schlick's theory, it offers a telling clue to just how the verification theory of meaning can overcome the difficulties Schlick's version has. I want to argue that induction is, in fact, a useful guide to knowledge. Furthermore, I would agree with anyone who argues that inductive arguments work because the universe is a certain way (e.g. empirical happenings are explicable by appeal to non-arbitrary universal laws, or if a law applies to the universe today it did apply in the past and it will apply in the future). But claiming the universe is a certain way is an expression of a belief that cannot be empirically verified. Rather, these beliefs are held because they are both empirically supported and they cohere with the rest of our system of beliefs.

With this in mind, return to Premise 1 of Schlick's abstract argument. There the argument claims; "for all X, a person can have knowledge of X only if X being true' makes some observable difference in the world as compared to X being false'." But consider, for example, the beliefs about the nature of the universe mentioned above. Their being 'true' does not necessarily make some observable difference in the world as compared to their being 'false'. So, scientific generalizations which depend upon beliefs like these for their justification are not known based solely upon their observable consequences. Rather, they are known because they cohere with a system of beliefs, many of which are not empirically verifiable. So, a more adequate explanation of knowledge is as follows: for all X, a person can have knowledge of X only if X somehow fits in with their system of beliefs.2 Hence, Schlick's theory goes astray because of his mistaken epistemology as expressed in Premise 1 of his argument.

Given this different epistemology, the verification theory of meaning can be more successfully expressed as follows.

Premise 1: for all X, a person can have knowledge of X only if X somehow fits in with their system of beliefs.

Premise 2: a person understands a sentence if and only if that person knows what the sentence means.

Premise 3: a person knows what a sentence means if and only if that person knows the rules for how that sentence is to be used.

Premise 4: the rules for how a sentence is to be used are as follows.
(i) In order to assent to a sentence, a person must know what beliefs would verify the sentence; and
(ii) A person must be able to distinguish these verifying beliefs from the beliefs that would falsify the sentence.

Conclusion: Hence, the meaning of a sentence does, indeed, lie in its verification conditions. However, unlike the position Schlick advocates, these conditions are not found in empirical states of affairs but, rather, they are found in the sentence's coherence to a system of beliefs.

Given this reworked verification theory of meaning I will apply it to the two example sentences that revealed the inadequacy of Schlick's theory. Consider the sentence "This fence is sturdy". I know what this sentence means. So, I know how to use it. To assent to this sentence (i.e. for it to be verified) I must hold many beliefs to be true. I must believe that the conditions of observation are normal. I must believe that I am actually seeing some thing called a fence. I must believe that if one or more of a variety of things are true about a fence, then it is sturdy (e.g. the fence does not wobble in the wind, it has no missing structurally important parts, it remains stable when force is applied, it was recently built by a competent carpenter, and so on). To dissent from the sentence I must hold many of the same beliefs that led to my assent except I must believe something is true about the fence that would make me classify it as not sturdy (e.g. it does wobbles, it is missing important parts, it was built by a poor carpenter, and so on). Clearly, my ability to describe what beliefs would verify the sentence "This fence is sturdy" and my ability to distinguish those verifying beliefs from others that would falsify the sentence are what demonstrate my understanding of the sentence. Hence, this description of verification conditions is the meaning of the sentence.

Next, consider the sentence "Every mass is gravitationally attracted to every other mass". Clearly, this sentence cannot be verified except by its coherence with my system of beliefs. In fact a description of these underlying and verifying beliefs is the only way to exhibit an understanding of the sentence. As argued earlier, I must believe certain things about the universe to even grant that the claim about gravity is a plausible conclusion to draw by induction (e.g. I have to believe that universe is governed by non-arbitrary universal laws). A belief in Einstein's Theory of Relativity is yet another belief that is necessarily appealed to in order to verify any claims about gravitational attraction. Clearly, one verifies this universal claim about gravity by appeal to an elaborate system of beliefs and this description of its verification conditions is, in fact, exactly how one would explain the meaning of the claim.

It is now clear that this version of the verification theory of meaning that is based on a coherence theory of knowledge can give an adequate account of the meanings of non-observation sentences. Where Schlick's theory fails, the version based on coherence succeeds. Indeed, it is this very adjustment of epistemology that allows the verification theory of meaning to remain a persuasive account of meaning.

Bibliography

Neurath, Otto. "Protocol Sentences." *Essential Readings in Logical Positivism.* ed. O.Hanfling. Oxford: Basil Blackwell Publisher Limited. 1981. pp.160-168.

Quine, W.V. "Two Dogmas of Empiricism." *From a Logical Point of View.* Cambridge: Harvard University Press 1961, pp.26-39 .

Schlick, Moritz. "Meaning and Verification." *Essential Readings in Logical Positivism.* ed. O.Hanfling. Oxford: Basil Blackwell Publisher Limited, 1981, pp.32-43.

Notes

1. Here, I have condensed his position into this simple argument form. Moritz Schlick, "Meaning and Verification" *Essential Readings in Logical Positivism* , ed.O.Hanfling (Oxford: Basil Blackwell Publisher Limited, 1981), pp.32-43.

2a. This coherence theory of knowledge seems to be the direction Otto Neurath is taking. Otto Neurath, "Protocol Sentences" *Essential Readings in Logical Positivism*, ed.O.Hanfling (Oxford: Basil Blackwell Publisher Limited, 1981), pp.160-168.
2b. My understanding of the coherence theory of knowledge comes from reading W.V. Quine. W.V.Quine, "Two Dogmas of Empiricism" *A Logical Point of View*, 2nd ed. (Cambridge: Harvard University Press, 1961), pp.26-39.