8   Verificationism

Overview

According to the Verification Theory, a sentence is meaningful if and only if its being true would make some difference to the course of our future experience; an experientially unverifiable sentence or "sentence" is meaningless. More specifically, a sentence's particular meaning is its *verification condition,* the set of possible experiences on someone's part that would tend to show that the sentence was true.

The theory faces a number of objections: it has ruled a number of clearly meaningful sentences meaningless, and vice versa; it has assigned the wrong meanings to sentences that it does count as meaningful; and it has some dubious presuppositions. But the worst objection is that, as Duhem and Quine have argued, individual sentences do not have distinctive verification conditions of their own.

Quine went on to bite that bullet and infer that individual sentences do not have meanings; according to him there is no such thing as sentence meaning. Quine also attacked the formerly widespread view that some sentences are "analytic" in the sense of being true by definition or solely in virtue of the meanings of their component terms.

The theory and its motivation

The Verification Theory of meaning, which flourished in the 1930s and 1940s, was a highly political theory of meaning. It was motivated by, and reciprocally helped to motivate, a growing empiricism and scientism in philosophy and in other disciplines. In particular, it was the engine that drove the philosophical movement of logical positivism, which was correctly perceived by moral philosophers, poets, theologians, and many others as directly attacking the foundations of their respective enterprises. Unlike most philosophical theories, it also had numerous powerful effects on the actual practice of science, both very good effects and very bad. But here we shall examine verificationism simply as another theory of linguistic meaning.

As one popular positivist slogan had it, a difference must make a difference. That is to say, if some bit of language is supposed to be meaningful at

all, then it has got to make some kind of difference to thought and to action. And the positivists had a very specific idea of what kind of difference it ought to make: the bit of language ought to matter, specifically, to the course of our *future experience*. If someone utters what sounds like a sentence, but you have no idea how the truth of that sentence would affect the future in a detectable way, then in what sense can you say that it is nevertheless a meaningful sentence for you?

The positivists threw out that rhetorical question as a challenge. Suppose I put a line of something that looks like gibberish on the blackboard and I assert that the scribble is a meaningful sentence in someone's language. You ask me what will happen depending on whether the scribble is true or false. I say "Nothing; the world will go on just as it otherwise would, whether this sentence is true or false." Then you should become deeply suspicious of my contention that this apparent gibberish actually means something. Less drastically, if you hear someone utter something in an alien tongue, you presume that it does mean something, but you have no idea what it means; that is because you do not know what would show whether it is true or false.

The positivists were concerned about the basic property of meaningfulness because they suspected that many of what passed for meaningful utterances in the works of the Great Dead Philosophers were not in fact (even) meaningful at all, much less true. So, their verification principle was most notably used as a criterion of meaningfulness as opposed to meaninglessness: a sentence was counted as meaningful if and only if there was some set of possible experiences on someone's part that would tend to show that the sentence was true; call this set the sentence's *verification condition*. (A sentence also has a falsification condition, the set of possible experiences that would tend to show that it was false.) If, in examining a proposed sentence, one could not come up with such a set of experiences, the sentence would fail the test and would be revealed as being meaningless, however proper its surface grammar. (Classic examples of alleged failures include: "Everything [including all yardsticks and other measuring devices] has just doubled in size." Eleventh-hour creation: "The entire physical universe came into existence just five minutes ago, complete with ostensible memories and records." Demon skepticism: "We are constantly and systematically being deceived by a powerful evil demon who feeds us specious experiences.")[1]

But the verificationists did not confine their concern to meaningfulness itself. The theory also took a more specific form, anticipated by C. S. Peirce (1878/1934). It addressed the individual meanings of particular sentences, and identified each sentence's meaning with that sentence's verification condition.

Thus, the theory had a practical use, as an actual test for what an individual sentence does mean; it predicts the sentence's particular propositional content. This is an important virtue, not shared by all its competitors. (The naive Proposition Theory says nothing of how to associate a particular proposition with a given sentence.) The Verification Theory was meant to be used, and

has been used—even by people who do not accept it in full—as a clarificatory tool. If you are confronted by a sentence that you presume to be meaningful but you do not entirely understand, ask yourself what would tend to show that the sentence was true or that it was false.

The Verification Theory is thus an *epistemic* account of meaning; that is, it locates meaning in our ways of coming to know or finding out things. To a verificationist, a sentence's meaning is its epistemology, a matter of what its proper evidence base would be. (On one interpretation, the Sellarsian functional or Inferential Theory of Meaning mentioned in chapter 6 is verificationist, as Sellars' inference rules are epistemic devices.)

The positivists allowed that there is a special class of sentences that do not have empirical content but are nonetheless meaningful in a way: these are sentences that are, so to speak, true by definition, true solely in virtue of the meanings of the terms that compose them. "No bachelor is married"; "If it's snowing, then it's snowing"; "Five pencils are more pencils than two pencils." Such sentences make no empirical predictions, according to the positivists, because they are true no matter what happens in the world. But they have meaning of a sort because they are true; their truth, however trivial, is guaranteed by the collective meanings of the words that occur in them. Such sentences are called *analytic*.

Verificationism is an attractive view that has been held fervently by many. But like every other theory of meaning, it has its problems.

Some objections

The positivists never achieved a formulation of the Verification Principle that satisfied even themselves; they could never get it to fit just the strings of words they wanted it to fit. Every precise formulation proved to be too strong or too weak in one respect or another (see Hempel 1950). There is a methodological problem as well: to test proposed formulations, the positivists had to appeal to clear cases of both kinds; that is, of meaningful strings of words and meaningless strings. But this assumes already that there *are* strings of words that are literally meaningless even though they are grammatically well-formed and composed of perfectly meaningful words; and that is, when you think about it, a very bold claim.

These problems do not constitute principled objections to verificationism, but they suggest two more that do.

OBJECTION 1

Wittgenstein would and did complain that the Verification Theory is yet another *monolithic* attempt to get at the "essence" of language, and all such attempts are doomed to failure. But in particular and less dogmatically, the theory applies only to what the positivists called descriptive, fact-stating language. But descriptive or fact-stating language is only one kind of language;

we also ask questions, give orders, write poems, tell jokes, perform ceremonies of various kinds, and so on. Presumably an adequate theory of meaning should apply to all these uses of language, since they are all meaningful uses of language in any ordinary sense of the term; but it is hard to see how the Verification Theory could be extended to cover them.

REPLY

The positivists acknowledged that they were addressing meaning only in a restricted sense; they called it "cognitive" meaning. To be "cognitively" meaningful is roughly to be a statement of fact. Questions, commands, and lines of poetry are not fact-stating or descriptive in that sense, even though they have important linguistic functions and are "meaningful" in the ordinary sense as opposed to gibberish.

The restriction to "cognitive" meaning was fine for the positivists' larger metaphysical and anti-metaphysical purposes, but from our point of view, the elucidation of linguistic meaning generally, it is damaging. A theory of meaning in our sense is charged with explaining all the meaning facts, not just those pertaining to fact-stating language. Further, the retreat to "cognitive" meaning does not help with objection 2.

OBJECTION 2

As we noted, the positivists were working with admittedly preconceived ideas of which strings of words are meaningful and which are not, trying to rule out the intuitively meaningless ones and to rule in the obviously meaningful ones. But it is not only the positivists that had preconceived ideas about which strings of words are meaningful. Suppose we look at a given string of words, and ask whether or not it is verifiable, and if so what would verify it. In order to do that, we already have to know what the sentence says; how could we know whether it was verifiable unless we knew what it says?

To determine how to verify the presence of a virus, say, we must know what viruses are and where, in general, they are to be found; thus it seems we must understand talk of viruses in order to verify statements about viruses, rather than vice versa. But, if we already know what our sentence says, then there is something that it says. And to that extent, it already is meaningful. Thus, the question of verifiability and verification conditions is conceptually posterior to knowing what the sentence means; it seems we have to know what a sentence means in order to know how to verify it.[2] But that is just the opposite of what the Verification Theory says.

A related point is that there is a glaring difference between the sentences that the positivists wanted to rule out as meaningless ("Everything has just doubled in size," "The entire physical universe came into existence just five minutes ago") and paradigm cases of meaningless strings, gibberish, or word salad of the sort illustrated in chapter 1 ("w gfjsdkhj jiobfglglf ud," "Good of

off primly the a the the why"). Surely the former strings are not meaningless in the same drastic and obvious way as the latter. Whatever may be wrong with them from an epistemological point of view, they are not mere gibberish.

REPLY

The verificationist must come up with some difference between the two types of string, without admitting that strings of the first type are meaningful after all. Here is a possible move. Strings of the first type are made of regular English words and, because they are grammatical from a superficially syntactic point of view, there is a kind of illusion of understanding. Since these are the kinds of strings of words that often do say and mean something, they produce in us a feeling of familiarity. We have the feeling that we know what they say. And in a weak sense we do: We can parse them grammatically, and we understand each of the words that occur in them. But it does not follow that these strings of words do, in fact, mean anything as wholes.

OBJECTION 3

The Verification Theory leads to bad or at least highly controversial metaphysics. Recall that a verification condition is a set of *experiences*. The positivists meant such verifying experiences to be described in a uniform kind of language called an "observation language." Suppose our "observation language" restricts itself to the vocabulary of subjective sense impressions, as in "I now seem to see a pink rabbit-shaped thing in front of me." Then it follows from verificationism that any meaningful statement I succeed in making can ultimately only be about my own sense impressions; if solipsism is false, *I* cannot meaningfully say that it is. And neither can anyone else.

Even if instead we loosen our notion of "observation" and include what Hempel (1950) called the "directly observable characteristics" of ordinary objects, it remains true that verificationism collapses a sentence's meaning into the type of observational evidence we can have for that sentence, *without remainder*. For example, we are driven to a grotesquely revisionist view about scientific objects—the instrumentalist view that scientific statements about electrons, memory traces, other galaxies, and the like are merely abbreviations of complex sets of statements about our own laboratory data. What is the verification condition of a sentence about an electron? Of course it is something macroscopic, something about meter readings or vapor trails in a cloud chamber or scattering patterns on a cathode ray tube or something of the sort. It is observable with the naked eye in the here and now. Are we really to believe that when we talk about subatomic particles we are not really talking about little particles—particles so small that they cannot be observed—but instead about meter readings, vapor trails, and the like? (The positivists themselves did not consider this instrumentalism grotesque, but thought it importantly true; *I* think it is grotesque.)

And when we turn to questions about the human mind, we find that a very strong version of behaviorism falls right out: statements about people's minds are merely abbreviations of statements about those people's overt behavior. For the only sort of observational evidence I ever have regarding your innermost thoughts and feelings is the behavior I see and hear you engaging in. If one is a verificationist, philosophy of mind is over and done with.

Possibly one or more of the foregoing and to me unappetizing theories are true. Perhaps they are *all* true. My point here is just that our theory of linguistic meaning should not show *in one step* that they are. Metaphysics should not be settled by a theory of language, for language is just a late adaptation found in one primate species. (Perhaps it is not even an adaptation, but a pleiotropism; that is, a mere byproduct of other traits that are themselves adaptive.)

OBJECTION 4

How does the Verification Principle apply to itself? Either *it* is empirically verifiable or it is not.

Suppose it is not verifiable. Then either it is *just* meaningless or it is an empty "analytic" or definitional truth. At least one positivist (I have forgotten which) gallantly embraced the idea that the principle is just meaningless, a ladder to be kicked away once one has climbed it. Some positivists took the line that the principle was a useful stipulative definition of the word "meaning," for technical purposes. Hempel (1950) called the principle a "proposal," hence neither true nor false, but subject to each of several rational demands and constraints, hence not simply *arbitrary*. Of course, any philosopher can stipulate anything at any time; but how does that help those of us who are looking around for a credible, indeed correct *theory of* meaning (as is)? Stipulations have their uses but, when we are trying to come to an adequate philosophical theory of a pre-existing phenomenon, a stipulation is not of much help.

I suppose some positivists thought of the principle as a faithful, correct definition that captures the antecedent meaning of "meaning." The trouble with that idea is that we do not know what specifically semantic evidence would bear out the definition as correct. Certainly the positivists had not subjected the term "meaning" to the sort of analysis that Russell had lavished on the word "the"; and neither ordinary people nor nonpositivist philosophers shared many *intuitive* judgments in line with the Verification Principle. It does not seem to be analytic, like "No bachelor is married"; I doubt that anyone who understands what the word "meaning" means and what "verify" means knows that to be meaningful is just to be verifiable and that a sentence's meaning is its verification condition.

Suppose the principle *is* taken to be empirically verifiable. That is, assume it is supposed to be confirmed by our experiences of sentences, their meanings, and their verification conditions, and meaning has been *found* to track

verification condition. But (as in objection 1) that presupposes that we can recognize sentence meanings independently of assigning them verification conditions. And it is not clear just what we should count as the "empirical" data on which the principle is based. Survey results from street corners? Dictionary definitions? (*Never* that.) One's own linguistic "intuitions"? (Also, the Verification Principle's own meaning would then, by the principle itself, coincide with its own verification condition, the set of experiences as of meanings coinciding with verification conditions; that is a nasty tangle, though I am unsure whether it is ultimately vicious.)

At any rate, the self-application problem is a real one, not just a superficial trick question.[3]

OBJECTION 5

Erwin (1970) offers an argument to show that every statement is verifiable, trivially and in much the same way. Suppose we are presented with a funny-looking machine that turns out to be a marvelous predictor. Namely, when one codes a declarative sentence onto a punch card and inserts it into a slot in the machine, the machine whirrs and clunks and lights up either "TRUE" or "FALSE"; moreover, so far as we are able to check, the machine is miraculously *always right*.

Now consider an arbitrarily chosen string of words, *S*. The following set of experiences *would* suffice to raise *S*'s probability to a drastic degree:

1   We code *S* onto a punch card.
2   We feed the card into our machine.
3   The machine lights up "TRUE."

(And remember that the machine has never once been wrong.) Thus, there exists a possible set of experiences that would confirm *S*, even if *S* is intuitively gibberish. And *S*'s own particular verification condition would be that, when it is coded and put to the machine, the machine lights up "TRUE." Thus the Verification Theory is trivialized, since every string of words is verifiable, and it assigns the wrong meanings to particular sentences (because very few sentences mean anything about punch cards being fed into infernal machines).

Something is wrong with that argument. But I have found it very hard to say exactly what.

OBJECTION 6

Any version of the Verification Principle must presuppose an "observation language" in which experiences are described; hence it must countenance a firm distinction between "observational" and (correlatively) "theoretical" terms. As I have mentioned, some of the positivists restricted their

observation language to statements about people's private, subjective sense impressions. But that did not serve for purposes of intersubjectively checkable science, so most positivists joined Hempel (1950) in appealing to the "directly observable characteristics" of ordinary objects. There are two problems here. First, the notion of "direct observation" is a vexed one, and seems totally technology-relative *and* interest- or project-relative as well. Is a visual observation "direct" when you are wearing eyeglasses? How about if you are using a magnifying glass? How about through a microscope, at this or that degree of magnification? How about through an electron microscope?

Second, "observations," and statements couched in "observation language," are *theory-laden* at least to a degree; what counts as an observation and what counts as observed and how a "datum" is described are all determined in part by the very theories that are in question.

Both these problems are knotty issues in the philosophy of science; I merely mention them here.[4] But they help to set up a much deeper objection to verificationism.

The big one

OBJECTION 7

Following Pierre Duhem (1906/1954), W. V. Quine (1953, 1960) argues that no individual sentence *has* a distinctive verification condition, except relative to a mass of background theory against which "observational" testing takes place. This will take some explaining.

There is a naive idea that many people have about science. It is that one puts forward a scientific hypothesis and then tests the hypothesis by doing an experiment, and the experiment shows, all by itself, whether the hypothesis is correct. Duhem pointed out that in the history of the universe there has never been an experiment that could singlehandedly verify or falsify a hypothesis. The reason is that there are always too many auxiliary assumptions that have to be made to bring the hypothesis into contact with the experimental apparatus. Hypotheses do sometimes get disconfirmed, outright refuted if you like, but only because the scientists involved are holding certain other assumptions fixed, assumptions that are disputable and may even be quite wrong. Suppose we are doing an astronomical study, and we are verifying and refuting things by making observations through complicated telescopes. In using such telescopes, the astronomers are assuming virtually all of optical theory, and countless other things besides.

Surprisingly, Duhem's point holds in everyday life as well. Take any good ordinary sentence about a physical object, such as "There is a chair at the head of the table." What is its verification condition? A first thing to notice is that "the" set of experiences that would confirm that sentence is in a way conditional, on one's hypothetical vantage point. We might try something like this: If you walk into the room from the direction of this door here, you

will have an experience as of a chair at the head of the table. But even that depends. It depends on whether you have your eyes open, and it depends on whether your sensory apparatus is functioning properly, and it depends on whether the lights are on, and . . . . These qualifications do not foreseeably come to an end. If we try to build in the appropriate hedges ("If you walk into the room, *and* you have your eyes open, *and* your sensory apparatus is functioning, . . . "), more qualifications crop up: Are you walking forward rather than backing into the room? Has something been interposed between you and the chair? Has the chair been camouflaged? Has it been rendered invisible by Martians? Has your brain been altered by a freakish burst of Q-radiation from the sky? We can go on like this for days.

The moral is that what we take to be "the" verification condition for a given empirical statement presupposes a massive background of default auxiliary assumptions. Those assumptions are usually perfectly reasonable, and it is no accident that we make them. But a particular "verification condition" is associated with a given sentence only if we choose to rely on such assumptions, almost any of which may fail. Intrinsically, the sentence has no determinate verification condition.

That is (to say the least) an embarrassment for a theory that identifies a sentence's meaning with that sentence's verification condition. But as we shall now see, the matter does not quite end here.

TWO QUINEAN ISSUES

In the 1950s and 1960s, W. V. Quine posed two challenges to the positivists' philosophy of language. First, he attacked the notion of analyticity (Quine 1953, 1960); that is, he attacked the claim that some sentences are true entirely in virtue of what they mean and not because of any contribution from the extralinguistic world. Quine gives a number of different arguments against analyticity. Some of those are unconvincing. Others are better, and have kept "analytic" a fairly dirty word ever since, or at least till a recent resurgence. I will not itemize them, but only give a general idea of what I think is at the bottom of Quine's repudiation of analyticity.

Quine shares and maintains the positivists' epistemological bent, and believes that if linguistic meaning is anything it is a function of evidential support. But his own epistemology differs from the positivists' in being holistic. There are individual sentences you hold true and sentences you reject as false, but in each case the support for your belief is a complex matter of the evidential relations your sentence bears to many other sentences. Whenever it seems that belief revision is required, you have a wide choice of which beliefs to give up in order to maintain a suitably coherent system (recall Duhem's point). And there is no belief that is completely immune to revision, no sentence that *might* not be rejected under pressure from empirical evidence plus a concern for overall coherence. Even apparent truths of logic, such as truths of the form "Either P or not P," might be abandoned in

light of suitably weird phenomena in quantum mechanics. But an analytic sentence would by definition be entirely unresponsive to the world's input, and so immune to revision. Therefore, there are no analytic sentences.

It may seem of little practical consequence whether there are any sentences that occupy the quaint philosophers' category of "analytic." But Quine's rejection of analyticity does have one interesting little repercussion. Suppose two English sentences, $S1$ and $S2$, are precisely synonymous. Then the conditional sentence "If $S1$, then $S2$" should be analytic, having the content "If [this state of affairs], then [this very same state of affairs]," which could hardly be falsified by any empirical development. So, if there are no analytic sentences, no two English sentences are precisely synonymous, not even "Bambi's mother was a doe" and "Bambi's mother was a female deer."[5]

It gets worse. Here is Quine's second challenge to the positivists, and indeed to practically everyone. It is not just that there are no analytic sentences, and not just that no two sentences are synonymous. It is that *there is no such thing as meaning.* Quine denies our "meaning facts" in the first place, and urges an eliminativism or nihilism about meaning, in the form of his doctrine of the "indeterminacy of translation."

Here too Quine has given a number of arguments, some more convincing than others. One (from Quine 1969) can be stated very simply: Individual sentences do not have verification conditions. But, if a sentence had any meaning at all, it would be a verification condition. Therefore, individual sentences do not have meanings at all. Thus does Quine save verificationism from objection 5. But it is a desperate lunge, since it saves the village by destroying it, simply eliminating meaning and the meaning-facts themselves. The problem with the argument, of course, is in justifying the second premise; if sentences do not have verification conditions, why continue to accept verificationism when there are so many other theories of meaning on offer?

A better-known argument starts with the hypothesis of a field linguist investigating an alien native language from scratch and trying to construct a "translation manual" or Native–English dictionary. Quine argues that the total evidence available to the linguist fails to determine any one translation manual; many mutually incompatible ones are entirely consistent with that evidence. Moreover the underdetermination here is not merely the standard underdetermination of scientific theories by the evidence on which they are based. It is radical: not even the world's totality of physical fact suffices to vindicate one of the rival translation manuals as against the others. Therefore, no translation is correct to the exclusion of its rival translations. But if sentences had meanings then there would be correct translations of them, namely the translations that did preserve their actual meanings. Therefore, sentences do not have meanings.

The problem here is to justify the premise that not even the world's totality of physical fact rules in one of the rival translation manuals as correct. The defense of that premise remains obscure.

Summary

- According to the Verification Theory, a sentence is meaningful if and only if its being true would make some difference to the course of our future experience; and a sentence's particular meaning is its *verification condition,* the set of possible experiences that would tend to show that the sentence was true.
- The theory faces a number of medium-sized objections.
- But the worst objection is that, as Duhem and Quine have argued, individual sentences do not have distinctive verification conditions of their own.
- Quine attacked the view that there are "analytic" sentences, sentences true solely in virtue of their meanings.
- From Duhem's point, Quine inferred the radical claim that individual sentences do not have meanings; there is no such thing as sentence meaning.

Questions

1   Respond on the verificationist's behalf to one of objections 1–6.
2   Try to tackle objection 7.
3   Have you any further criticism to make of the Verification Theory?
4   Discuss Quine's attack on analyticity, or his defense of meaning indeterminacy. (Some outside reading would be required for either of these.)

Further reading

- Ayer (1946) is a classic and/but very accessible exposition and defense of verificationism.
- Some influential anti-verificationist papers besides Quine's were Waismann (1965b) and various collected essays by Hilary Putnam (1975b), especially "Dreaming and 'Depth Grammar'."
- Quine's doctrine of the indeterminacy of translation spawned a vast and toxic literature. For one view of the doctrine and the early literature, see Lycan (1984: ch. 9) (you were expecting me to recommend someone *else's* view?); also, see Bar-On (1992).
- The 1970s and 1980s saw an outbreak of neoverificationism, due largely to writings of Michael Dummett collected in his (1978) book. For an oversimplifying but very clear attack on Dummett, see Devitt (1983).