

A REFUTATION OF QUINE'S HOLISM*
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For more than four decades, many Anglo-American philosophers have been held in thrall by a captivating metaphor, Quine's holistic image of the man-made fabric (or web) of knowledge and belief within which no statement is absolutely immune to revision. And many have been led to think that the following three distinctions are indefensible:

- (i) that between sentences and the propositions that they express;
 - (ii) that between necessary and contingent propositions;
- and
- (iii) that between a priori and empirical knowledge.

First I will argue that Quine's holistic metaphor is incoherent since, by its own lights, some statements turn out to be wholly immune to revision. Then I will argue for the rehabilitation of distinctions (ii), (i), and (iii), in that order.

PART I. THE INCOHERENCE OF QUINE'S HOLISTIC FABRIC.

Quine's holism was first presented in the Introduction to the first edition of his *Methods of Logic* (1950). Here – with some of the salient sentences numbered – are some of the crucial passages:

[1] Logic, like any science, has as its business the pursuit of truth. What are true are certain statements; and the pursuit of truth is the endeavor to sort out the true statements from the others, which are false. [2] Truths are as plentiful as falsehoods, since each falsehood admits of a negation which is true. ... For truth ordinarily attaches to statements by virtue of the nature of the world. It is a commonplace, inaccurate but not unfounded, that a statement is true when it corresponds to reality, when it mirrors the world. ... Our system of statements has such a thick cushion of indeterminacy, in relation to experience, that vast domains of law can easily be held immune to revision in principle. ... Mathematics and logic, central as they are to the conceptual scheme, tend to be accorded such immunity ... [but] are not immune to revision if it is found that essential simplifications of our whole conceptual scheme will ensue.

Almost exactly the same view, this time presented in terms of his fabric-metaphor, appeared about a year later in his better-known "Two Dogmas of Empiricism" (1951). Again I have numbered two salient sentences.

The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric which impinges on experience only along the edges. ... A conflict with experience at the periphery occasions readjustments in the interior of the field. [3] Truth-values have to be redistributed over some of our statements. ... it becomes folly to seek a boundary between synthetic statements, which hold contingently on experience, and analytic statements which hold come what may. Any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system. ... Conversely, by the same token, [4] no statement is immune to revision. Revision even of the law of excluded middle has been proposed as a means of simplifying quantum mechanics; and what difference is there between such a shift and the shift whereby Kepler superseded Ptolemy, or Einstein Newton, or Darwin Aristotle?¹

Let us say that any conceptual system satisfying the above descriptions is a Quinean conceptual system. Plainly, Quinean conceptual systems can tolerate much variance in content, differences about matters ranging from observation-statements to the presumed laws of physics, mathematics and logic. Little wonder that Quinean holism is so beguiling even to philosophers of divergent persuasions. Nevertheless, the description, as given in the numbered sentences, of what is to count as a Quinean conceptual system, involves a contradiction. In the first three of these sentences, Quine commits himself to principles from which we can conclude, contrary to the fourth, that at least one statement within any fabric of belief or so-called knowledge is totally immune to revision. The principles involved are:

P1. Principle of Cognitive Content: The items that feature in his holistic system – whether it be the fabric of total science, the science of logic, or a conceptual system of humbler origins – are possible items of doxastic and cognitive attitudes; they are truth-valued statements. Quine's commitment to P1, for the case of logic, is displayed in sentence [1] from *Methods of Logic*. It follows, too, from the fact that the fabric he describes in "Two Dogmas of Empiricism" is a fabric of beliefs, taken together with the fact that, as he himself puts it in *Quiddities*, "To believe

something, is to believe that it is true".² In short, P1 entails that sentences that lack truth-values, (as distinct from statements about those sentences) cannot feature in a Quinean web of belief.

P2. Principle of Equinumerosity: Each statement in the fabric is paired with its negation in such a way that – as sentence [2] puts it – "each falsehood admits of a negation which is true."

P3. Principle of Revisability: Revision of a statement – according to sentence [3] – involves re-distributing truth-values, i.e., a change of truth-value from true to false or false to true. Revising a statement, as Quine conceives it, does not encompass changing its status to some so-called "third truth-value"; nor does it involve merely ignoring that statement, forgetting it, or having it disappear from language.

P4. Principle of Unrestricted Revisability: In the words of sentence [4], "no statement is immune to revision."

In effect, these principles are meta-principles, second order statements about the relationships and dynamics between the first-order statements that make up the bulk of any Quinean conceptual system.

Intuitively, my refutation of Quine's holism goes like this. Suppose that either recalcitrant experience or a pragmatic desire for simplicity leads us to revise, in the sense of P3, the status of some statement *S* from truth to falsehood. Then, by P2, any such revision will involve revising the truth-value of *S*'s negation from falsehood to truth. But this means that, so long as our conceptual system conforms with P1 by having cognitive content, no matter what statement we undertake to revise, there will always be some statement that is true; and *that* statement, viz., the second-order statement that some statement is true, will – contrary to P4 – be immune to revision.

For those who prefer a little more rigor, the refutation can be dressed up as follows. Consider the statement

(1) There are some true statements

and its negation

(2) There are no true statements.

Clearly, any conceptual system with cognitive content, i.e., any system governed by P1, must accept

(3) (1) is true.

What would it be for (3) to be revised? By P3, revision of (3) would entail

(4) (1) is false

and hence, by P2, would entail holding (1)'s negation, (2), to be true. That is to say, revision of (3) would entail

(5) (2) is true.

But from (5), by existential generalization, we can infer

(1) There are some true statements.

So revision of (1) – taking it to be false – entails the truth of (1). Hence (1) is immune to revision, and P4 is false.

In effect the argument has the form which medieval logicians called "consequentia mirabilis", viz.,

(6) $(\sim P \supset P) \supset P$.³

It provides a reductio ad absurdum proof of the truth of (1), a proof which shows that if, from the supposition that (1) is false it follows – given P1 through P3 – that (1) is true, then (1) is true. It demonstrates that (1) is true, and unrevisable, by showing its denial to be self-refuting.

So much for my proof that Quine's P4 is inconsistent with the other principles – P1, P2, and P3 – that characterize his system. Now let me try to deal with some of the objections that might be, and in some cases have been, voiced.

Objection 1:

You have construed Quine's P4 as a logico-semantic thesis about what can truthfully be denied, taking him to assert that for any statement, S, currently believed to be true it may turn out that it *really* is the case that S is false. But another way of construing him is to suppose that he is advancing a prediction about the possible pragmatics of future belief-states, claiming only that for any statement, S, currently believed to be true, it may turn out that we subsequently will come to "give up" S and come to *believe* that S is false. After all, the whole point of his historical examples of statements once thought to be necessarily true but now believed, by some, to have lost that status, is to suggest that the same fate may well befall other statements currently believed to be necessarily true. Proving, as you claim to have done, that there is at least one statement, viz., (1), which can't turn out to be false, doesn't show that we won't, some day in the future, find pragmatic reasons for revising our beliefs about (1), coming to *believe* that it is false.⁴

Reply:

Taking up the last point first, I grant that one cannot, in general, infer from the fact that a statement is necessarily true that it can't be supposed or believed to be false. I grant, for instance, that the putatively necessary truth that it is impossible to square a circle has been disbelieved by many. Nevertheless, for the particular case at issue, viz., the statement, (1), that there are some true statements, I would claim not only that (1) cannot be false but also – on grounds that I share with Quine himself – that it cannot coherently even be believed to be false. For in Quine's own words, quoted above, "To believe something, is to believe that it is true". To believe that (1) is false is, accordingly, to believe that it is true that (1) is false, and so is to believe that some statement is true. Statement (1), then, is a counter-example to Quine's P4 on both construals, whether it is taken as a logico-semantic thesis or as a prediction about a possible future history of our belief-attitudes.

Objection 2:

Your charge that Quine's position is incoherent rests on a proof which makes use of his own principles P1 through P3 in order to demonstrate the falsity of another, P4. But Quine could easily evade your charge of inconsistency, and safeguard his Unrestricted Revisability Principle, P4, – the principle with which you are taking issue – by availing himself of another of his principles, viz.,:

P5. Principle of Unrestricted Incorrigenibility: This is the principle he expresses by saying "any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system."

In short, he could make his position coherent, and continue to hold P4 true, by revising one of his other principles, P1, P2, or P3.

Reply:

First, this objection ignores the fact that the five principles so far considered are all meta-principles governing what is to count as a Quinean conceptual system. Strictly speaking, they are not statements within any such system, so none of these principles should be thought of as applying to itself or to its fellow principles. Accordingly, to revise any one of these principles so as to avoid the inconsistency between them would be to concede the incoherence as charged and to opt for a radically different kind of system. We could, of course, treat these principles as among the items of an enhanced Quinean system and hence allow them to apply to themselves and to each other. But as

we shall now see, even that ploy would produce unacceptable consequences.

Suppose that in an enhanced Quinean system we were to invoke P5 so as to render P4, the Principle of Unrestricted Revisability, immune to revision. There would, of course, be strange irony in thus treating P4 as an exception to itself. On the other hand, holding P4 true come what may would not, by itself, land us in logical or semantic paradox. We might fairly be accused of incorrigibility or intransigence. But strict incoherence could be avoided provided we were able to make what Quine calls "drastic enough adjustments elsewhere in the system" by revising P1, P2, or P3.

Just how drastic would these adjustments have to be?

Suppose Quine were to reject P1, the Principle of Cognitive Content. Then what he has called "the system" would no longer be a system of statements, or therefore of knowledge or belief. To reject P1 would be to retreat to the kind of universal noncognitivism that eschews all talk of truth and falsity and thereby debar itself from giving any reasons for doing so.

Suppose he were to reject P2, the Principle of Equinumerosity. Then he would have to reject either the claim that each falsehood has a negation or the claim that the negation of a falsehood is true. And it is hard to see how he could take either of these steps without embracing the idea of truth-value gaps or some sort of antirealist account of truth, both of which he would want to reject on other grounds. Truth-value gaps have no place in either the conceptual system he is sketching or the canonical notation he thinks needed for expression of the truths of science. And as for the kind of anti-realism that identifies truth with verifiability or warranted assertibility, that is quite contrary to another principle governing the system of statements that he is describing, viz.,

P6. Principle of Truth-Realism: This is the principle to which he subscribes when he declares that "truth ordinarily attaches to statements by virtue of the nature of the world", and again that "a statement is true when it corresponds to reality, when it mirrors the world."

Nor has he changed his position regarding P6. He has recently reiterated it in *Quiddities*, where, as against Dummett, he asserts: "Dissociating truth from warrant, we become free to recognize that some truths are discoverable and some are not; and we become free to call the rest of the statements false."⁵ Rescuing P4 by modifying P2 in either of the suggested ways, then, would simply generate inconsistency with other of his views, and –

in particular – with the realism of P6.

Then again, were Quine to reject P2, he would also have to abandon P3, his account of what revisability amounts to. P3, remember, says that revision of a statement involves "re-distributing truth-values" – changing from true to false, or from false to true – not a switch to something truth-valueless.

But how about P3 itself? Couldn't it be modified so that revision of a statement consists in a change of cognitive status, not from true to false but from true to lacking a truth-value? In that case, P2 could also be abandoned. The consequences, however, would be disastrous. To the extent that revision of a statement were taken to entail loss of truth-value, a wholesale revision of the purported truths of our conceptual system would take us directly into the dark realm of noncognitivism. Since believing P is tantamount to believing P true, if there were no purported truths there would be no beliefs either. But that means that P1, too, would have to go. The kind of revision that would yield neither truth nor falsity for each of the statements in our web of belief, would be anathema to Quine. It would be to give up any fabric of knowledge, web of belief, whatever – even what I have called an enhanced one.

If I am right, then, Quine's talk of a fabric of belief and knowledge will be coherent only if he revises P4, the Principle of Unrestricted Revisability, recognizing it as false not only because it runs afoul of my counter-example but also because it is inconsistent with other essential features of his fabric.

Objection 3:

Isn't there something suspect about your second-order use of the truth predicate as when, in (3), the statement, (1), that there are some truths, is itself supposed to be true? What if we stratified the truth predicate as Tarski has urged that we should?⁶ Mightn't this cast doubt on the validity of the existential generalization on which you rely in the last step of your proof?

Reply:

I don't see any problem here. For I, like Quine, subscribe to a deflationary, or minimalist, theory of truth according to which to attribute truth to the statement "It is true that snow is white" is to attribute truth to the statement "Snow is white", and to do the latter is to attribute whiteness to the snow. So long, therefore, as there are things that

have properties, first-order statements attributing those properties to those things will be true, second-order statements attributing truth to those first-order statements will be true, and so on. My first-order truth-involving statement, (1), is a merely an innocuous existential generalization grounded in the fact that things like snow do have properties like being white; and my second-order statement (3), in turn, is grounded in (1). There's no need here for, or threat from, the complexities of Tarskian hierarchies.⁷

PART II. THE NECESSARY TRUTH OF THE STATEMENT THAT THERE ARE SOME TRUE STATEMENTS.

So far I have argued that, contrary to Quine's holism, there is at least one statement that is immune to revision, viz., (1). I will now argue that statement (1) is, therefore, one which is true "come what may", or – as some earlier empiricists liked to say – a statement which is necessarily true.

Intuitively, my argument appeals to a principle which Quine should accept, viz.,

P7. Principle of Subjunctive Necessity: *if there were a situation in which a statement was immune to revision, that statement would count as necessarily true.* Once more, however, the argument can be dressed up a bit more formally – this time by appeal to

P8. Principle of Conditional Necessity: an inference from P to Q is valid if and only if the corresponding conditional of the form "(P \supset Q)" is necessarily true together with the modally strengthened form of (6) (let's call it "modal mirabilis"),

$$(7) \quad \Box (\sim P \supset P) \supset \Box P$$

which simply says that any statement, such as (1), which follows of necessity from its own negation, is necessarily true.

Once more, my argument is simple enough. We saw, in the first section, that the truth of (1) can be deduced from the negation of (1) and hence that the inference from $\sim(1)$ to (1) is valid. Appealing to P8, we record this by writing

$$(8) \quad \Box (\sim (1) \supset (1))$$

Substituting "(1)" for "P" uniformly in (7) we obtain

$$(9) \quad \Box (\sim (1) \supset (1)) \supset \Box (1)$$

Then from (8) and (9), by modus ponens, we deduce

$$(10) \quad \Box (1)$$

But (10), on interpretation, is precisely the thesis that I set out to prove, viz.,

(11) It is necessarily true that there are some true statements.

Objection 1:

Couldn't Quine reject P7, your Principle of Subjunctive Necessity?

Reply:

Although Quine believes that as a matter of fact there are no statements whatever that fact satisfy his immunity-to-revision test of necessity, we must presume that he is not *legislating* the non-existence of necessary truths by so using the expression "necessary truth" that nothing *could* count as a necessary truth. Were he to disagree, then – so far as the present issue is concerned – the argument between Quine and his opponents would be trivialized. It would amount to nothing more than a preference for one expression over another, Quine preferring to talk of immunity to revision where his opponents talk of necessary truth. Legislating an end to the dispute in this way would indeed give him a victory. But it would be a hollow, because merely verbal, one. For the dispute would arise all over again in terms of Quine's preferred locution. Are there, we would then have to ask, any statements that are absolutely immune to revision? As to that, I've just shown that there are, statement (1) being my counter-example to Unrestricted Revisability.

Objection 2:

Couldn't Quine object to P8, your Principle of Conditional Necessity?

Reply:

P8, or something like it, has been recognized as a characteristic of valid inference ever since Aristotle pointed out, in his *Prior Analytics*, 24, 18–23, that "A [valid] syllogism is discourse in which, certain things being stated, something other than what is stated follow of necessity from their being stated", and went on to argue, in *Posterior Analytics* Bk. I, Ch. 4, for the need to distinguish between being necessarily true and merely being true in every instance.

Quine himself makes a similar distinction when, following Bolzano and Tarski, he defines the concept of logical consequence as the logical truth of a conditional, where logical truths are said to be such that "they not only are true but stay true [on all interpretations of the non-logical words]."⁸ He mightn't like the wording of P8; but he could hardly object to its substance.

Objection 3:

If, in saying that (1) is necessarily true, you are saying that it is analytic, then you owe us an account of what is wrong with Quine's attack on the notion of analyticity. Otherwise, he can modus tollens your argument by reiterating his well-known and widely accepted indictment of this suspect notion.

Reply:

I sidestep the challenge by agreeing with his attack on analyticity and pointing out that analyticity should in no way be identified with necessity. It is true that Carnap and others thought all revision-immune statements of logical and mathematical fact to be a product of linguistic conventions, and thus set themselves up for Quine's renunciation of all such talk of what is true "by definition", "by virtue of language", "by virtue of meanings", and the like. My own view on this score was aptly expressed by John Stuart Mill, when he wrote: "The doctrine that we can discover facts ... by an artful manipulation of language, is so contrary to commonsense, that a person must have made some advances in philosophy to believe it."⁹ I therefore applaud Quine's attack on the notion of analyticity as a ground of necessity.

Statement (1), I acknowledge, certainly isn't analytic or necessary in anything like the sense of being "true by virtue of the meanings of words". But other accounts can be given of what it is for a statement to be necessarily true, accounts which eschew all conventionalist talk of a so-called "linguistic component" which is thought to be contrasted with a "factual component" in the truth of statements. Quine's own talk of "true on all interpretations" provides at least one other legitimization of necessity-talk, though – as I explain in dealing with Objection 5 – I regard it as unsatisfactory.

Objection 4:

Wouldn't Quine object to your use of (7), viz., what you have called the modal mirabilis, $\Box((\sim P \supset P) \supset \Box P)$? In view of Quine's aversion to modal notions, are you not here begging the question against him?

Reply:

My appeal to modal mirabilis is really just a bit of window dressing. The argument stands perfectly well without it since P7 and P8 suffice. In any case, Quine himself has avowed, "I part company with the essentialists and the modal logicians only when they accord these modes a place in the austere and enduring description of

reality."¹⁰

Objection 5:

Even if we accept (1) as a necessary truth, it certainly wouldn't count as a Quinean "logical truth" – one that is true on all interpretations of its non-logical vocabulary. In this respect (1) is like the obviously contingent statement "There are some dinosaurs." Aren't you therefore committed to grounding talk of necessity in something a bit more metaphysical, something like truth in all possible circumstances or all possible worlds?

Reply:

I do indeed think of necessary truths – such as I'm claiming (1) to be – as ones that are true in all possible circumstances rather than on all interpretations of their non-logical words. The necessary truth of (1), as I have shown, is grounded in the fact that there are no possible circumstances – not even those in which it is supposed to be false – in which it fails to be true.

As John Etchemendy has argued,¹¹ those who define logical truth as truth in all models, and logical consequence as truth of the consequent in all models in which the premises are true, tend to conflate two importantly different kinds of semantic models: interpretational ones and representational ones. Roughly, an interpretational semantics holds the world fixed and determines which sentences would remain true were we to change the meanings or interpretations of the sentences. A representational semantics, by contrast, holds meanings or interpretations of sentences fixed and determines which of them would remain true were the world itself to change in certain ways. The two approaches may yield the same results for certain simple languages, but not for all. An interpretational semantics of the Bolzano/Tarski/Quine sort, Etchemendy shows, is apt to be extensionally incorrect with respect to both validity and necessary truth.¹² A representational semantics, however, seems to get the extension of these two concepts right but relies upon pre-philosophical intuitions as to what sorts of variations in the constitution of the world are to count as genuinely possible. Etchemendy's conclusion, as I understand him, is that the second sort of semantics is more reliable than the first, despite that fact that it involves a notion of necessity which, in his view, is "obscure and poorly understood."¹³ These are the facts, he seems to be saying, so let's abandon the self-deceit of supposing otherwise.

My own sympathies lie wholly with representational semantics, for reasons which must by now be obvious. After all, statement (1) is a perfect example of a statement which we have reason to hold necessarily true even though it would be declared otherwise on an interpretational semantics.

How, then, would (1) fare on a representational account?

We want an explanation of the felt necessity and absolute immunity of (1). It is to be found, I suggest, in suitable generalization of Wittgenstein's Tractarian notion of truth-conditions. Wittgenstein spoke only of non-elementary, compound statements as having truth-conditions. He said that the last column in a truth-table is "an expression of the truth-conditions" for a truth-functionally compound statement (4.442(3)) and that where this last column shows a statement to be "true for all the truth-possibilities of the elementary propositions" the proposition's truth-conditions are tautological (4.46(2-4)) or necessary. These truth-possibilities, of course, are nothing other than what a representational semantics considers to be possible ways the *world* (not language) might be.

Now I think we all understand this talk of truth-conditions, i.e., of possible ways the world might be, as it applies to non-elementary propositions. But there is no good reason why we should not extend it to elementary (atomic) propositions and their second-order generalizations as well.¹⁴ We can then say of an existential generalization such as "There are some truths" that it is true for all truth-possibilities of itself. After all, my argument for the necessary truth of (1) amounts to showing that it is true for all truth possibilities, both the case where it is supposed true and the case where it is supposed false.

Since (1), like the truth-functional tautologies, is true for all truth-possibilities (or, as some would say, true for all possible worlds), I invite Quine to join me in acclaiming (1) as not only absolutely immune to revision but even (if he can get over his aversion to the word) as "necessarily true".

PART III: PROPOSITIONS, NOT JUST SENTENCES, ARE NEEDED AS THE VEHICLES OF TRUTH

So far I've been content to go along with Quine in referring to the items that

feature in his conceptual systems as "statements". Yet the term "statement" is notoriously ambiguous between two main interpretations: that which identifies statements with sentences (usually physical occurrences of sentence tokens or utterances thereof) and that which identifies statements with propositions (usually taken to be abstract entities of some sort bearing much the same sort of relationship to actual and possible sentences as do numbers to actual and possible numerals). Quine construes "statement" in the first way. I construe it in the second, and will now explain why.

In what follows I shall take propositions to be something like the truth-conditionally determined meanings of possible or actual sentences. I'm not going to try to be much more precise in my characterization of propositions than that, although my account will be filled out a little in Section V. It will suffice here to demonstrate that Quine's candidates can't play the role they need to play and that some sort of abstract entities satisfying the above desiderata are called for instead.

Over the years, Quine has retreated somewhat from the brash physicalism of *Methods of Logic*. There he claimed that truth and falsity should be predicated not of abstract sentence types but of concrete sentence tokens, or of what he refers to as "individual events of statement utterance."¹⁵ He opts for sentence tokens rather than sentence types because, as he explains, "utterances that sound alike can vary in meaning with the occasion of the utterance" both because of vagueness, ambiguity of meaning, and fugacity of reference.

Later, in *Word and Object* for example, he claimed that we can avoid these problems by constructing eternal sentences where "the eternal sentence will be one that the original speaker could have uttered in place of his original utterance in those original circumstances without detriment, so far as he could see, to the project he was bent on." And he claimed, further, that "there is no reason not to appeal simply to the eternal sentences themselves as truth-vehicles."¹⁶ The suggestion was that we have no need to appeal to anything else.

This move from ordinary sentence utterances to idealized eternal sentences seems innocuous enough. Disambiguation, etc., can indeed be effected by translation of one verbal form into another more explicit one, both still being physical objects made up of words or their inscriptions – the sorts of things that he describes as "tangible objects of the size so popular in the marketplace".¹⁷

But can eternal sentences, thus concretely construed, play all the roles, as truth-bearers that we – and, for that matter, Quine – require of them? I shall now offer two arguments for concluding that they cannot.

Argument 1:

In the first place, no sort of sentence, if conceived of in physicalistic terms, can satisfy the requirements put on it by the principles that govern Quinean conceptual systems. Recall P2, which asserts that "truths are as plentiful as falsehoods, since each falsehood admits of a negation which is true." Understood as being about physical events of sentence utterance or tangible inscriptions of eternal sentences – or, for that matter, occurrent beliefs – it is just plain false that every falsehood has a negation, let alone one which is true.

Argument 2:

If Quine's talk of statements is understood as being about physical events of sentence utterance or tangible inscriptions of eternal sentences, then the thesis whose truth I demonstrated in Parts I and II of this paper, viz.,

(11) It is a necessary truth that there are some true statements would be false. For Quine would certainly want to say – and I would certainly agree – that his candidates for truth-bearers, when conceived of in physicalistic terms, are human artifacts, contingently existing things that have come into existence and will pass away. Hence, both of us would want to assert that

(12) It is not a necessary truth that there are some true sentences.

But from (11) and (12), by the Principle of Nonidentity of Discernibles, it follows that

(13) True statements are not identical with true sentences.

Objection 1:

As to your first argument, Quine himself acknowledged the force of something like it when he dealt with the claim that, as he put it, "for many propositions the appropriate eternal sentences, though utterable enough, just happen never to get uttered (or written)."¹⁸ His way of dealing with such an objection is to claim that there is another way of taking sentences and other linguistic forms that leaves their existence and distinctness uncompromised by failure of utterance. We can take each linguistic form as the sequence, in a mathematical sense, of its successive characters or phonemes.¹⁹

Reply:

In here admitting certain sorts of abstract objects along with physical objects into his basic ontology Quine backs off from the unabashed physicalism of concrete sentences. But how can this retreat to mathematical sequences be reconciled with his aversion to possibilia? The trouble is that there seems to be a difference between those abstract mathematical sequences (classes of ordered pairs) that are in fact instantiated by concrete word-patterns and those that are not. Hence the question arises as to whether a given abstract mathematical sequence is ever in fact instantiated. If it is, well and good. But if it isn't, then we seem to be stuck with merely possible instantiations of such sequences. And this means that the propositionalists' objection to do with unuttered eternal sentences arises all over again, now in the guise of merely possible instantiations of abstract mathematical phoneme sequences. This is something that Quine should have known from the outset. After all, his original characterization of eternal sentences is couched in terms of possibilia: they are ones that "could" be uttered, not necessarily ones that are uttered.

Objection 2:

As to your second argument, given Quine's retreat to talk of statements as abstract mathematical sequences, couldn't he take issue with proposition (12) and thereby avoid conclusion (13)?

Reply:

Despite his recourse to abstract mathematical sequences of characters and phonemes, Quine would still insist that it is a wholly contingent matter that eternal sentences, so construed, exist and are sometimes true.

It seems clear that, for him, there would have been no mathematical sequence of such characters or phonemes were spoken or written characters and phonemes never to have existed. He certainly would not want to say that his eternal sentences are necessary existents or that their truth is anything other than contingent. For were he to suppose (12) to be false, he would thereby have given away the case against necessary truth from the outset.

There can therefore be no doubt but that he, with me, would hold (12) true. But in that case, my argument for saying that we need abstract truth-vehicles not concrete ones

must surely go through. I hold that there are good reasons to call them propositions. Replacing talk of statements in (11) with talk of propositions, we obtain

(14) It is necessarily true that there are some true propositions.

However, I don't want to be held hostage for sake of a word. It suffices to have demonstrated a distinction between concrete sentences and what they may, on a given occasion, be used to express. That, after all, has always been the main issue at stake in the sentence versus proposition debate.

PART IV: SOME NECESSARILY TRUE PROPOSITIONS CAN BE KNOWN TO BE TRUE BY A PRIORI METHODS.

It remains for me to rehabilitate another distinction that is widely supposed to have been indicted by Quine's holism: the epistemic distinction between a priori and empirical modes of knowledge. To be sure, it isn't easy to pin down a hard quote in which Quine explicitly denies the distinction. Nevertheless, it is easy to see why he and his followers would call it into question. For Quine is conflation-prone, tending not to distinguish the syntactic notion of analyticity from the metaphysical notion of necessity, or either from the epistemic notion of a prioricity. Again, if, like him, one thinks that the only possible claimants to a priori status are analytic or necessary truths, and then comes to think that there are no such truths, one will simply have to conclude that there aren't any a priori knowable ones either.

In a sense, the modern a priori/empirical distinction belongs to Kant, for it was he who gave it the meaning that dominated discussions for nearly two hundred years. When the logical positivists, for instance, debated whether metaphysical knowledge was possible, the issue for them, as for Kant, turned on whether any contingent (or synthetic) truths were knowable a priori. And they, like him, took it that the a priori/empirical distinction – like that between necessary and contingent propositions (or analytic and synthetic ones) – was dichotomous, i.e., exclusive and exhaustive for the relevant domain, the domain itself being variously thought of as that of all propositions, that of all true propositions, or that of all true propositions that might in principle be known.²⁰ The question about the possibility of a science of metaphysics amounted to: How do these two dichotomies map onto one another? It simply wouldn't have occurred to them that some philosophers might use the terms "a priori" and "empirical" in such a way that it would be intelligible, because not self-contradictory, to speak of some propositions being known in both ways. Yet many philosophers nowadays do so speak, Saul Kripke being a case in

point.

I want to make three main points about Kant's discussion of a priori knowledge.

(1) His main aim in *Critique of Pure Reason* is not to determine whether this or that particular proposition is known a priori, but to determine what it is *possible* for us to know a priori. He makes this explicit in the Preface when tells us: "the chief question is always simply this: What and how much *can* the understanding and reason know apart from all experience?"²¹ [my emphasis].

(2) When he characterizes a priori knowledge as "absolutely independent of experience" (B 3), he does not mean that our *understanding* of propositions is possible without experience. He means only that, once we have understood them, we can sometimes *know them to be true* without further appeal to experience. On his view, then, to say that a proposition is *knowable* a priori is not to say that experience has played no role in our understanding the proposition concerned, but only to say that in order for us then to judge whether the proposition be true or false, experience isn't necessary since in such cases understanding and reason alone will suffice.

(3) A priori knowable propositions are contrasted with empirical ones, not a posteriori ones. Here's what Kant has to say:

Opposed to it [a priori knowledge] is empirical knowledge, that is knowledge possible only a posteriori, that is through experience.²²

Note that it is not knowledge through experience, i.e., a posteriori knowledge, to which a priori knowledge is opposed, but empirical knowledge, i.e., knowledge that is possible *only* through experience. A priori knowledge is knowledge of the truth-value of a proposition for which experience (beyond that needed to understand the proposition) is not necessary, since understanding and reason suffice. Empirical knowledge is knowledge of the truth-value of a proposition for which experience (beyond that needed to understand the proposition) is necessary. A posteriori knowledge, by way of contrast, is knowledge of the truth-value of a proposition for which experience (beyond that needed to understand the proposition) is sufficient.

Here, then, we have two distinctions: the a priori/empirical distinction, on the one hand, and the a priori/a posteriori distinction, on the other hand. While the first distinction – as Kant defined it – is dichotomous, the second is not. Obviously no

proposition is knowable both a priori and empirically since no proposition can be such that experience is both necessary and not necessary for knowledge of its truth-value. However, there is no reason, in principle, why there should not be propositions for the knowledge of whose truth-values experience isn't necessary (i.e., they are knowable a priori) but is sufficient (i.e., they are knowable a posteriori).²³ For it is not at all difficult to cite propositions which are knowable in both ways, knowable both a priori and a posteriori.²⁴

I construe the a priori/empirical distinction along broadly Kantian lines and hold:

- (a) that the distinction holds only for propositions, not for sentences.
- (b) that it holds only for a subdomain of propositions, those that are knowable.
- (c) that within that subdomain it is exclusive and exhaustive, no proposition being knowable in both ways and all being knowable in one or other of these two ways.
- (d) that although recourse to experience is needed in order to determine what proposition a given sentence expresses (what that sentence "means"), it may not be needed in order to determine whether the proposition expressed is true.
- (e) that in order to determine what proposition a given sentence "P" expresses (what "P" means), one needs to determine the truth-conditions for what "P" says, i.e., one needs to determine in what possible circumstances one would say that sentence "P" expressed something true and in what possible circumstances one would say that "P" expressed something false;²⁵ and that determining the truth-conditions for what sentence "P" says will almost certainly require recourse to experience of how we use that sentence.
- (f) that knowing the truth-conditions for a proposition P does not in general entail knowing whether P is true or false.²⁶
- (g) that, nevertheless, that there are cases in which knowing what proposition sentence "P" expresses (what "P" means, the truth-conditions for uttering "P"), suffices for us to know that the proposition P is true. We can know P to be true, for instance, if we know that P is true for all truth-conditions. In such a case, P is knowable a priori. By the same token, when knowing the truth-conditions for P does not suffice for knowledge of the truth-value of P, P will be knowable, if at all, only by recourse to experience, i.e., empirically.
- (h) that a proposition's being knowable a priori is perfectly consistent with its *also* be known by recourse to experience, i.e., being knowable a posteriori, as Kant would put it. There is no reason why a proposition may not be knowable

both by appeal to experience and without any need of such an appeal.

This last point is especially pertinent to my claim, now to be argued for, that the proposition

(1) There are some true statements [or, as I shall now say, propositions] is knowable a priori. For I do not doubt that the truth of (1) can be established experientially. If I know, through experience, the truth of

(15) Snow is white

then I *thereby* know experientially that some proposition is true. That is to say, I thereby know experientially that (1) is true. But this does not mean that the truth of (1) is knowable *only* by appeal to experience, i.e., empirically. For I claim that the truth of (1) is also knowable without any appeal to experience other than that which is necessary for us to obtain the concepts involved and so come to understand what proposition is expressed by the sentence "there are some true propositions."

In order to see this, one need only reflect on the nature of the proof I adduced, in Part I, for the truth of (1). It was a *reductio* proof, one that proceeded not from any premise presumed true, or whose truth might therefore be said to be derived from experience, let alone from any whose truth could be known only by experience. Rather, it proceeded from the denial of (1) itself, viz., (2) – the proposition that there are no true propositions. It proceeded by demonstrating that (2) is self-refuting. Nor were the principles appealed to in deriving the conclusion that (1) is immune to revision – Quine's principles P1 through P4 – held to be true on the basis of appeals to experience. On the contrary, they were examined a priori for consistency and found wanting, thereby demonstrating that at least one of them must be false. My proof of the truth of (1) was no more empirical than was Euclid's rather more interesting, and momentous, proof in mathematics that there is no greatest prime number. And the same can be said for my further proof of the truth of

(14) It is necessarily true that there are some true propositions.

To sum up, since I have shown (14) to be true by purely a priori methods, each of the following propositions is thereby also demonstrated to be true

(16) There are some a priori knowable propositions

(17) It is a priori knowable that there are some true propositions

and

(18) It is a priori knowable that there are some necessarily true proposition.

PART V. CONCLUSION

I take myself to have shown that any conceptual system rich enough to embrace the contents of a Quinean system – even an enhanced one – must have three main features. It must reject P4, his Principle of Unrestricted Revisability, when that is construed as a logico-semantic thesis about what can truly be held false, i.e., about what really is false, rather than as a pragmatic one about what can merely be believed false, i.e., about our believings. It must allow for a central core of necessary, and hence (in the relevant sense) unrevisable truths. And it must allow that certain of the propositions within that central core are knowable a priori.

But where does this leave the propositions that lie outside the central core – those which are not necessary but contingent? Are any of them knowable a priori, or are they knowable only by appeal to experience, i.e., empirically? And in what sense, if at all, are they revisable?

The question about a priori knowability of contingent propositions is too complex to take up here, so I shall simply set it aside (except for a footnote).²⁷

But the question about revisability of propositions in the contingent domain turns out to have a fairly simple answer. It turns out that, on Quine's own say-so, even paradigmatically contingent statements are immune to revision in the logico-semantic sense.

Consider the observation-sentence

(19) "I see that snow is white"

as it might have been uttered by a particular person, Ray Bradley, on a particular occasion, his first seeing snow on Mt. Ruapehu on Xmas Day, 1935. As it stands (19) is infected by the sorts of fleeting changes of reference that render it unsuitable for truth-attributions. So, following Quine, we replace it with an appropriately constructed eternal sentence, say

(20) "Ray Bradley, on the 25th December, 1935, sees that the snow on Mt. Ruapehu is white."

What is it that makes (20) – or the proposition expressed by (20) – true or false?

According to P6, Quine's Principle of Truth-Realism, its truth-value is a function solely of whether or not reality was as (20) says it was. If reality was indeed as (20) says it was, then since nothing whatsoever – and certainly not any of our subsequent believings about how the past was – can make the past different from what it was, (20) not only would have said something true on the occasion of its utterance, but would remain true for all time. Likewise, if reality was not as (20) says it was, then (20) not only would have said something false on the occasion of its utterance, but would remain false for all time. So says Quine. And so say I, since I, too, subscribe to P6. Both of us, then, would agree that, with the move to eternal sentences there is a move to truth-values that are, as he puts it, "fixed through time and from speaker to speaker."²⁸

But this means that the so-called "redistribution of truth-values" called for by P3, the Principle of Revisability, construed as re-distribution of truth-values over statements, or propositions, is strictly impossible. The only sense that can coherently be given to such talk is to construe it as involving changes of mind as to which statements we believe to be true.

Yet if this is how it is construed, the Principle of Unrestricted Revisability loses most of the significance that has usually been claimed for it. Nothing of logico-semantic significance stems from the undoubted fact that a time may come, for example, when we or our descendants lose all grasp on reality and come to "give up" the beliefs that we currently hold true. Nor can anti-realists derive any comfort from Quine's talk of the fabric of belief being a "man-made fabric". For while it is true that, in a rather trivial sense, we put together the fabric of our believings and could easily pull that fabric apart, it is just plain false – by Quine's own principles – that the fabric of truths we believe is man-made. What makes a statement true – says Quine the realist – is the way the world is; and that is beyond our capacity for revision. We can make, or unmake, our believings. The world can only make, but not unmake, the truth of our true propositions we believe. Holistic, and pragmatic, considerations may influence which propositions we *hold* to be true. But they have no say whatsoever in determining which of them in fact *is* true. To suppose otherwise is to trade on an ambiguity in the word "belief", that in which a belief is a disposition or state of a believer, and that in which a belief is that which a believer believes to be true.²⁹

* Presented to the Philosophy Department of the University of Western Washington, May 26, 1999. This is but the latest of several papers on related themes.

¹ "Two Dogmas of Empiricism", p. 43. The fabric metaphor reappears in several passages in *Word and Object* (1960), most notably when he writes: "In an obvious way this structure of interconnected sentences is a single connected fabric including all sciences, and indeed everything we ever say about the world." (p. 12) And as recently as 1986 he has reiterated these claims about what he calls "holism". In his "Reply to Jules Vuillemin" (*The Philosophy of W. V. Quine*, ed. Lewis Edwin Hahn and Paul Arthur Schilpp, Library of Living Philosophers Vol. XVIII, (La Salle, Illinois: Open Court, 1986) pp. 619-20), he first acknowledges that for purposes of the argument in "Two Dogmas", it would have sufficed to argue that "many [sentences] that are analytic by acclaim can be declared false when a theory is being adjusted to recalcitrant experience". Then he asks: "What, then, of the holistic doctrine that every sentence is vulnerable?" His answer is: "Even a truth of logic or mathematics could be abandoned in order to hold fast some casual statement of ephemeral fact. ... In principle, thus, vulnerability is universal."

² Quine, *Quiddities*, p. 21.

³ The inference proceeds by substituting (1) for "P" and the negation of (1), viz., (3), for " $\sim P$ ".

The logical truth, $(\sim P \supset P) \supset P$, appears as theorem 2.01 in Russell and Whitehead's *Principia Mathematica*. It was invoked by Aristotle when he wrote, "he who says everything is false makes himself [his own assertion] also false." (*Metaphysics*, 1012b 17-18). Quine would, of course, accept it as a logical truth beyond reproach since it is a truth belonging to truth-functional logic.

⁴ Something like this objection was voiced by my colleague, Bjorn Ramberg.

⁵ *Quiddities*, (Cambridge, Massachusetts: Harvard University Press, 1987), p. 56.

⁶ Jack Smart has raised this issue in correspondence.

⁷ I'm sure Quine would agree. See his article on Truth in *Quiddities*, pp. 212-216.

⁸ *Methods of Logic*, p. 4, with the last part of the sentence paraphrased.

⁹ See extract in *Necessary Truth*, ed., Sumner and Woods, p. 23.

¹⁰ W. V. Quine, "Reply to Herbert G. Bohnert", in *The Philosophy of W. V. Quine*, (La Salle, Illinois: Open Court, 1986), p. 94.

¹¹ John Etchemendy, *The Concept of Logical Consequence*, (Cambridge, Massachusetts: Harvard University Press, 1990).

¹² For instance, Etchemendy points out that if we take the conjunction of three sentences, one of which says that the relation *taller than* is transitive, the second of which says that *taller than* is irreflexive, and the third of which says that there is no tallest thing, then if our universe is finite (from which it would follow that the third conjunct is false), the negation of this sentence would have to be counted as logically true. Putting his point in terms of the consequence relation, "we all recognize that the claim that there is no tallest object ... is not a logical consequence of the mere fact that the *taller than* relation is transitive and irreflexive. And we recognize these things quite independent of our beliefs or assumptions, whatever they may be, about the size of the universe." *The Concept of Logical Consequence*, p. 120.

¹³ *The Concept of Logical Consequence*, p. 92.

¹⁴ L. Wittgenstein, *Notebooks 1914 - 1916*, 24(6). One of his examples is "a = a"

which he describes as a tautology. Other examples include "Language consists of sentences." (NB 52(4)). For a discussion of these and other cases see my *The Nature of All Being: a Study of Wittgenstein's Modal Atomism*, (Oxford: Oxford University Press, 1992), p. xix.

¹⁵ *Methods of Logic*, p. 1.

¹⁶ *Word and Object*, p. 208.

¹⁷ *Word and Object*, p. 272.

¹⁸ *Word and Object*, p. 194.

¹⁹ *Word and Object*, p. 195.

²⁰ The logical positivists were of various minds about the domain, some wanting the distinction to hold for false propositions as well as true ones, some wanting it to hold for all true ones (irrespective of whether they were knowable or not), and some recognizing that the distinction is fundamentally an epistemic one holding only for the domain of propositions that are in principle knowable.

²¹ Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith, (London: Macmillan and Co., 1950), A xvii.

²² *Critique of Pure Reason*, B 3.

²³ I say "in principle" because Kant also advances two further doctrines about a priori knowledge: (a) that the mark of propositions knowable a priori is their being "thought as necessary"; and (b) that "experience teaches us that a thing is so and so, but not that it cannot be otherwise" (B 3). Given (a) and (b), it follows that some a priori knowable propositions, viz., those which (in being thought as necessary") involve modal ascriptions of the form "It is necessary that P", are not also knowable a posteriori. Nevertheless, his *definitions* leave the question open as to whether some propositions which are necessary, but are not "thought as necessary" (in so far as they do not involve modal ascriptions), might be both knowable a priori and knowable a posteriori.

²⁴ For discussion of such propositions, see Bradley and Swartz, *Possible Worlds*, pp. 151-155. My aim in drawing attention to the nonsynonymy of "empirical" and "a posteriori", as Kant uses these terms, is not to make a point of Kantian scholarship (though I believe he does in fact use them in the way described). Nor is it to insist that these terms be used as I believe he used them. It is primarily to draw attention to a distinction – that between what can be known experientially and what can be known only experientially – neglect of which has led some recent writers to argue at cross purposes with those who believe the Kantian-cum-positivist dichotomy between a priori and empirical knowledge worth preserving.

²⁵ (See *Tractatus* 4.063).

²⁶ As Wittgenstein put it: "One can understand [a proposition] without knowing whether it is true." (4.024).

²⁷ Kripke has argued that certain propositions, e.g., the proposition that the length of stick S [the standard meter bar in Paris] is one meter, are a priori knowable by those who first fixed the reference of the term "meter". His grounds are that such a person "knows automatically, without further investigation, that S is a meter long." [*Naming and Necessity*, p.275.] But it may be doubted whether such a person's automatic knowledge of the truth that S is a meter long amounts to any more than an a priori inference from another proposition, viz., the proposition that he had previously stipulatively defined "one

meter" as being the length of S, where this latter proposition, of course, is known experientially. In that case, Kripke's example no more qualifies as a case of a priori knowledge of a contingent proposition than does any other example of inference from experience.

²⁸ *Word and Object*, p. 193.

²⁹ Quine's claim that our beliefs are man-made, when not suitably disambiguated, lends unwarranted plausibility to the full-blown pragmatist thesis advanced by William James when he said that "to an unascertainable extent our truths are man-made products". Yet, as G. E. Moore pointed out, "We should never say that we had made a belief true, merely because we had made the belief." [G. E. Moore, "William James' *Pragmatism*", *Proceedings of the Aristotelian Society*, 1907-8; reprinted in *Philosophical Studies*, London; Kegan Paul, 1951, p. 142.