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Quine's Ladder:
Two and a Half Pages From the *Philosophy of Logic*

Marian David
University of Notre Dame

I want to discuss, in some detail, a short section from Quine's *Philosophy of Logic*. It runs from pages 10 to 13 of the second, revised edition of the book and carries the subheading 'Truth and semantic ascent'.[1] In these two and a half pages, Quine presents his well-known account of truth as a device of disquotation, employing what I call *Quine's Ladder*. The section merits scrutiny, for it has become the central document for contemporary deflationary views about truth.

1. Redundancy, Utility, and Disquotation

In the passages of *Philosophy of Logic*—henceforth *PL*—leading up to the section under discussion, Quine has been engaged in dismissing meanings in general and propositions in particular. Truth enters the scene because the friends of propositions have said propositions are needed as the proper bearers of truth. Quine responds that truth applies to sentences and not to propositions (because there are none).

This view of Quine's is of course contentious. I will not quarrel with it here. It will turn out that the choice of truth-bearers does not matter all that much as far as my main topic is concerned. Quine's Ladder can be decoupled from his view that truth applies to sentences: there are friends of propositions who advocate an essentially Quinean account of truth.

Quine's preference for sentences as bearers of truth leads him to consider the "deeper and vaguer" worry that truth should hinge on reality, not on language. He fully agrees with the sentiment but thinks that it creates no difficulties for his view. On the contrary, he says: "No sentence is true but reality makes it so" (*PL*: 10). What comes next is motivated by his desire to show that truth applying to sentences is not in conflict with truth hinging on reality. It is noteworthy that this concern with truth hinging on reality, which surfaces prominently at various points, is the initial motivation for the whole section; indeed, Quine's account of truth, the *disquotational* account, emerges eventually as an offshoot from the way in which he addresses this concern.[2]

The remainder of our section from *PL* can be divided into three parts, exhibiting a movement of thought somewhat like the movement from thesis to antithesis to synthesis.[3]

FIRST PART: LIMITED REDUNDANCY. This part is very short, consisting of the last ten lines of the paragraph that runs from pages 10 to 11. Having embraced the point that sentences are made true by reality, Quine illustrates it by reminding us of Tarski's biconditional:

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[1] Quine 1986; the first edition appeared in 1970.

[2] One usually regards Quine as the father of contemporary *deflationism* about truth. Yet, serious concern for the idea that truths are made true by reality is often seen as a sign of *inflationary* thinking about truth.

[3] You might want to compare this section from *PL* with pages 212-15 from Quine's *Quiddities* (1987) and, especially, with pages 79-82 from the second edition of his *Pursuit of Truth* (1992).

(1) 'Snow is white' is true if and only if snow is white.[4]

He immediately continues with the words (label added):

> [A] In speaking of the truth of a given sentence there is only indirection; we do better simply to say the sentence and so speak not about language but about the world. So long as we are speaking only of the truth of singly given sentences, the perfect theory of truth is what Wilfrid Sellars called the disappearance theory of truth. (*PL*: 11)

Later, in *Quiddities*, Quine disavows this talk of the disappearance (theory) of truth on the grounds that it takes the quotation marks too lightly: after all, 'is true' is not all that has disappeared on the right-hand side of (1). Instead:

> What can justly be said is that the adjective 'true' is dispensable when attributed to sentences that are explicitly before us. (Quine 1987: 214)

These passages are deliberately phrased to remind us of the so-called *redundancy theory of truth*, according to which the truth predicate is superfluous and could simply be erased from our language without loss. But note Quine's qualifying *proviso*: so long as we are speaking only of the truth of singly given sentences that are explicitly before us.

SECOND PART: UTILITY. The second part takes up the contrary theme, already foreshadowed by the *proviso* of the first part. It tells us that the redundancy theory fails because of cases where the truth predicate is used but not used to speak of the truth of singly given sentences explicitly before us: the truth predicate is not dispensable after all. The important cases of this sort—the only ones Quine considers—are *generalizations* involving the truth predicate. I cite a number of passages in their order of appearance; they are all from page 11 of *PL*, with labels in brackets added for ease of cross-reference:

> [B] Where the truth predicate has its utility is in just those places where, though still concerned with reality, we are impelled by certain technical complications to mention sentences…The important places of this kind are places where we are seeking generality, and seeking it along certain oblique planes that we cannot sweep out by generalizing over objects.

> [C] We can generalize on 'Tom is mortal', 'Dick is mortal', and so on, without talking of truth or of sentences; we can say 'All men are mortal'. We can generalize similarly on 'Tom is Tom', 'Dick is Dick', '0 is 0', and so on, saying 'Everything is itself'.

> [D] When on the other hand we want to generalize on 'Tom is mortal or Tom is not mortal', 'Snow is white or snow is not white', and so on, we ascend to talk of truth and of sentences, saying 'Every sentence of the form '*p* or not *p*' is true', or 'Every alternation of a sentence with its negation is true'.

> [E] What prompts this semantic ascent is not that 'Tom is mortal or Tom is not mortal' is somehow about sentences while 'Tom is mortal' and 'Tom is Tom' are about Tom. All

[4] Actually, he says (*PL*: 10): "The sentence 'Snow is white' is true, as Tarski has taught us, if and only if real snow is really white". The 'real' and 'really' are concessions to the made-true-by-reality sentiment.

> three are about Tom. We ascend only because of the oblique way in which the instances over which we are generalizing are related to one another.

Passage [B] ties the utility of the truth predicate to generalizations and announces (a bit mysteriously perhaps) that in certain cases and because of certain complications we are impelled to generalize indirectly. [C] provides two contrast cases for comparison, two cases where we *can* generalize directly. [D] gives an example of a case where we have to generalize indirectly, which is supposed to illustrate the utility of the truth predicate: this passages contains Quine's Ladder albeit in compressed form. [E] introduces the notion of *semantic ascent* and promises to tie it in with the initial motivation, showing how truth applied to sentences still hinges on reality.

THIRD PART: DISQUOTATION. In the final part of our section, Quine claims that there is a close connection between the utility of the truth predicate in generalizations, emphasized in the second part, and Tarski's biconditionals from the first part—though exactly how this crucial connection works is not spelled out explicitly. The following are from the bottom half of page 12 of *PL*—skipping one important passage to be mentioned later:

> [F] This ascent to a linguistic plane of reference is only a momentary retreat from the world, for the utility of the truth predicate is precisely the cancellation of linguistic reference. The truth predicate is a reminder that, despite technical ascent to talk of sentences, our eye is on the world. This cancellatory force is explicit in Tarski's paradigm: ''Snow is white' is true if and only if snow is white'.
>
> [G] By calling the sentence ['Snow is white'] true, we call snow white. The truth predicate is a device of disquotation.
>
> [I] We need it to restore the effect of objective reference when for the sake of some generalization we have resorted to semantic ascent.

With the slogan "The truth predicate is a device of disquotation" Quine's account of truth has emerged. This may not be obvious right away. The slogan is, after all, still talking about the disquotational or cancellatory *force* of the truth predicate; that is, according to [F] and [I], about the feature responsible for its *utility*. But, so Quine seems to hold, what accounts for the utility of the truth predicate thereby accounts for truth. This transition from a claim about the utility or function of the truth predicate—about what it can *do* for us or we can *do* with it—to a claim purporting to tell us what truth *is*, is explicit in his later writings: "Attribution of truth to 'Snow is white' just cancels the quotation marks and says that snow is white. Truth is disquotation" (1987: 213). "To ascribe truth to the sentence is to ascribe whiteness to snow…Ascription of truth just cancels the quotation marks. Truth is disquotation" (1992: 80).

But isn't it absurd to identify truth itself with a function like disquotation? Isn't this some sort of category mistake? Quine wouldn't mind. He has chosen his slogan *because* it has a paradoxical ring to it. When Quine talks about *truth*, using the abstract noun, he has in mind the *truth predicate* 'is true' or the adjective 'true'. So when we think of his account of truth, we should think of it in the first instance as an account of the predicate, which turns out to be an account of the role the predicate plays in our language and, in particular, of its utility. Quine holds that this is all that can be and need be done here by way of an account, at least as far as our ordinary truth predicate is concerned. Compare his slogan with the classic 'Truth is correspondence', which is short for 'Truth is correspondence with a fact', which expresses an account of truth in the traditional sense, convertible into standard definitional form: '*x* is true iff *x* corresponds with a fact'. Quine's slogan, 'Truth is disquotation', is short for 'The truth predicate is a device of disquotation', which clearly is *not* supposed to be convertible into: '*x* is true iff *x*…'. According to Quine, no account of truth taking this traditional form is possible or even desirable: 'Truth is disquotation' is cast to look like 'Truth is correspondence', but it is intended in a spirit of friendly mockery; its paradoxical flair is meant to convey that traditional "theories" of truth are on the wrong track entirely.[5]

Quine talks throughout as if there were only one way for sentences to be explicitly given: by quotation. This is wrong. A sentence might be spelled-out, letter by letter, using proper names of letters instead of quotations; it might then be followed by the words 'is true'—this was Tarski's (1935) official way. A sentence might be explicitly given by being uttered, and the speaker might get the response 'That is true'. Or the speaker herself might continue with the words 'is true', resulting in the sounds: 'Snow is white is true'—we don't usually mention quotation marks when speaking. Cases of the last sort could be regarded as containing inaudible quotation marks. But cases of the first two sorts are not as easily assimilated. They pose an obvious problem. Since they are examples of truth attributions to explicitly given sentences, they should come out as involving dispensable uses of the truth predicate. But since the sentences are not quoted, the examples are not covered by the claim that truth is disquotation: the disquotational account, taken literally, is too narrow. Quine would regard this as little more than a nuisance, pointing out that Tarski-style biconditionals (modified in minor ways) still hold for such cases: and that's what really matters. The slogan that truth is disquotation is an oversimplification, justifiable by the need for brevity in advertising.

Quine acknowledges that *non-eternal* sentences cause problems: the biconditional ''This is white' is true iff this is white' is untrue if 'This' denotes something different than 'this'. He narrows attention to Tarski-biconditionals quoting *eternal* sentences, free from demonstratives and other context-sensitive ingredients; he defends this move as "the convenient line for theoretical purposes".[6]

I will follow Quine and ignore all such problem cases for simplicity's sake, focusing on Tarski-biconditionals that quote eternal sentences, and equating the explicit giveness of a sentence with its being quoted.

2. Limited Redundancy: A Dilemma

Quine moves from Tarski's biconditionals to the claim that the truth predicate is dispensable when applied to sentences explicitly before us (i.e. to quoted sentences), and

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[5] Quine remarks that the disquotational account may be said to *define* truth, but only in a loose sense: "it only tells us how to eliminate [the truth predicate] when it is attached to a quotation" (1987: 215). Definition in the strict sense, explicit definition, would tell us how to eliminate the predicate from every context, replacing it with other terms. This is not forthcoming, and it could not be done consistently, not for *our* truth predicate applied to *our* language, as Tarski has shown; cf. Quine 1987, pp. 214-6; 1992, pp. 81-3.

[6] Quine 1992, p. 79; cf. *PL*, pp. 13-14. Tarski originally used the context-sensitive 'it is snowing' for his paradigmatic biconditional; he corrected that later; cf. his 1935, p. 156, and his 1944 and 1969.

from there to the claim that the truth predicate is indispensable for generalizations. These moves rely on the condition contained in passage [A]:

> Quine's *Limited Redundancy Condition (LRC)*: The truth predicate is dispensable, *provided* we are speaking only of the truth of singly given sentences that are explicitly before us.

The *proviso* is intended as a necessary and sufficient condition for the dispensability of the truth predicate; and this dispensability is characterized thus (see [A]): "we do better simply to say the sentence"; and in *Pursuit of Truth* (1992: 80): "So the truth predicate is superfluous when ascribed to a given sentence; you could just utter the sentence".

Quine's *LRC* is supposed to neatly segregate uses of the truth predicate into two camps for separate treatment: (*a*) the dispensable ones, where the truth predicate is applied to the quotation of a sentence; and (*b*) the indispensable ones, universal and existential generalizations, where the truth predicate is applied to a quantifier phrase, or rather, in Quine's canonical notation, to a variable bound by a quantifier, as in: 'For every *x*, if *x* is F then *x* is true'; and 'For some *x*, *x* is F and *x* is true'. This segregating role of the *LRC* comes out quite nicely in the continuation of the passage from *Quiddities*, cited earlier, which occurs after Quine has already employed Tarski's paradigm, (1), to make the point that attribution of truth just cancels the quotation marks:

> What can justly be said is that the adjective 'true' is dispensable when attributed to sentences that are explicitly before us. Where it is not thus dispensable is in saying that all or some sentences of such and such specified form are or are not true, or that someone's statement unavailable for quotation was or was not true… (Quine 1987: 214)

But there is a difficulty. The uses of the truth predicate do not line up as neatly as Quine wants them to, giving rise to a dilemma. Consider the occurrence of the truth predicate within the biconditional:

(1) 'Snow is white' is true if and only if snow is white.

The sentence 'Snow is white' is explicitly before us, explicitly given by quotation, and succeeded by 'is true' to make the left-hand side of (1). Does this embedded use of the truth predicate fall under the *proviso* of the *LRC*?

Say it does, then the truth predicate of the sentence on the left-hand side of (1) is dispensable. Instead of uttering that sentence, Quine, following his own advice, would have done better simply to say: 'Snow is white'; hence, instead of uttering (1), he would have done better simply to say: 'Snow is white if and only if snow is white'. This is puzzling: How can the truth predicate in (1) be thus dispensable? Tarski's biconditionals are at the very heart of Quine's account of truth: they are supposed to make explicit the disquotational force of the truth predicate, which is wherein the utility of the predicate is supposed to lie. Quine *needs* the biconditionals to state his own account of truth.

Say, alternatively, that the use of the truth predicate in the sentence on the left-hand side of (1) does *not* fall under the *proviso*; say the *proviso* is meant to apply only to free-standing sentences—sentences such as ''Snow is white' is true.'—not to embedded ones. The question arises: What *will* account for the embedded use of the truth predicate in (1)? and: What will account for embedded uses in general, uses within conditionals, disjunctions, conjunctions, negations, where the truth predicate is attached to the quotation of a sentence but the resulting sentence is itself a component of a larger whole? Not the second part of Quine's story, for that part is designed to cover generalizations involving truth. All such embedded uses of the truth predicate are left in the lurch.

The latter option cannot be a live one for Quine. It would leave hosts of uses of the truth predicate unaccounted for. This leads us back to the first horn of the dilemma. Tarski's biconditionals, as employed by Quine, are exceptions to the *LRC*. The truth predicate is dispensable whenever it is applied to explicitly given sentences, *except* for Tarski's biconditionals used to expound the disquotational account of truth: eliminate ''___' is true' from *them* and you have eliminated the disquotational account.

When formulating the *LRC*, Quine uses the phrase '*speaking of*'; he says the truth predicate is dispensable "so long as we are speaking only of the truth of singly given sentences" (see [A]). At other places, quoted earlier, he says the predicate is dispensable when *attributed to* or *ascribed to* explicitly given sentences (1987: 214; 1992: 80). These speech-act verbs are naturally taken with *assertoric force*, so that attributing or ascribing truth to a sentence, and speaking of the truth of a sentence, imply asserting of the sentence that it is true. If so, the *LRC*'s *proviso* applies only to cases where we *assert* the truth of sentences explicitly before us. Tarski's biconditionals would then not fall under the *proviso*, since we do not assert the truth of 'Snow is white' when asserting (1). But this takes us back to the second horn of the dilemma, leaving hosts of embedded uses of the truth predicate unaccounted for.[7]

Assertoric force raises a closely related problem for some of Quine's most central pronouncements. Consider passage [G] from *PL*, already quoted above, but with the speech-act verb emphasized:

> [G] By *calling* the sentence ['Snow is white'] true, we *call* snow white. The truth predicate is a device of disquotation. (*PL*: 12)

The first part covers only assertoric uses of ''Snow is white' is true'. When one utters this assertively, one asserts of 'Snow is white' that it is true, one calls the sentence 'Snow is white' true. But one does not assert ''Snow is white' is true' when uttering this in the course of uttering a sentence such as (1), even if one utters (1) assertively; hence, in uttering (1), one does not assert of 'Snow is white' that it is true, one does not *call* it true. I do not assert of you that you are a liar, I do not *call* you a liar, when I assert that you are a liar if and only if I am. Since the first part of [G] covers only assertoric uses of the truth predicate, it is ill equipped to support the second part which is supposed to be an entirely general claim about *the* function of the truth predicate *schlechthin*.[8]

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[7] Though conjunctions could now be handled. An assertion of ''Snow is white' is true and 'grass is green' is true' can be regarded as asserting both, ''Snow is white' is true' and ''Grass is green' is true', with each use of the truth predicate coming out as dispensable. But this still leaves us with occurrences of ''s' is true' within conditionals, disjunctions, and negations, where it remains unasserted even when the embedding sentences are asserted.

[8] Quine's later variants of [G] exhibit the same problem: "Attribution of truth to 'Snow is white' just cancels the quotation marks and says that snow is white. Truth is disquotation" (1987: 213); "To ascribe

[G] suffers from a confusion censured by P. T. Geach: "This whole subject is obscured by a centuries-old confusion over predication embodied in such phrases as "a predicate is *asserted* of a subject"…In order that the use of a sentence in which "*P*" is predicated of a thing may count as an act of *calling* the thing "*P*", the sentence must be used assertively, and this is something quite distinct from predication, for, as we have remarked, "*P*" may still be predicated of the thing even in a sentence used non-assertively as a clause within another sentence" (Geach 1960: 253).

We can help Quine out if we take Geach's hint and distinguish more carefully between *predicating* and *asserting*. To say that one predicates a predicate of something implies that one utters a truth-evaluable subject-predicate sentence, it does not imply that one asserts the sentence while uttering it. This allows for talk of predication with respect to unasserted clauses. When one asserts a sentence of the form 'If a is F then b is H', the predicate 'is F' is predicated of a, even though the sentence 'a is F' is an unasserted component within the whole: though unasserted, it is still truth-evaluable.[9] Normally, a predicate loses its predicative function within quotation marks. The predicate 'is white' is not predicated of snow in ''Snow is white' has three words': the truth-value of 'Snow is white' is irrelevant to the truth-value of the whole. ''Snow is white' is true', however, is special. Here the predicate 'is white' does have its predicative function even though it occurs within quotation marks: the truth-value of 'Snow is white' is relevant to the truth-value of the whole; indeed, the whole is true if and only if 'Snow is white' is. Predicating 'is true' of the sentence 'Snow is white' *restores* the predicative function of 'is white'. Quine's claim should have been:

> [G*] By predicating 'is true' of 'snow is white', we predicate 'is white' of snow. Truth is disquotation.

Thus reconstructed along non-assertoric lines, the first part of the claim does a better job supporting the general thesis that (the) truth (predicate) is (a device of) disquotation. Moreover, we can now see the first part of Quine's [G] as being focused more narrowly—too narrowly—on a special subset of the cases covered by [G*], namely the ones where we not only predicate 'is true' of 'Snow is white' but, in doing so, assert of 'Snow is white' that it is true.[10]

The move to predication improves on Quine's [G]. It also helps with *LRC* whose *proviso* is naturally taken as covering only assertoric uses of the truth predicate, which makes it too narrow, leaving all non-assertoric uses unaccounted for. Rephrasing *LRC*, or reinterpreting it, in terms of predication removes this unwanted restriction: The truth predicate is dispensable, *provided* we are predicating it only of singly given sentences

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truth to the sentence is to ascribe whiteness to snow…Truth is disquotation" (1992: 80). The speech-act verbs indicate assertoric force, making the first parts of these claims too narrow to support the thesis that truth is disquotation, which is supposed to hold even when truth is not asserted of anything.

[9] Quine (1960: §20): "Predication joins a general term and a singular term to form a sentence that is true or false according as the general term is true of false of the object, if any, to which the singular term refers."

[10] Note the difference between *predicating*, which is *semantic*, and *attaching*, which is *syntactic*. I cannot attach 'is white' to 'snow' (or to snow) by attaching 'is true' to the quotation of 'snow is white'. But, according to [G*], I can predicate 'is white' of snow by attaching 'is true' to the quotation of 'snow is white', provided that, in doing so, I predicate 'is true' of 'snow is white'.

that are explicitly before us. This is good, because Quine surely wants all such uses of the truth predicate to come out as dispensable. All, that is, *except* the ones within the Tarski-biconditionals he employs when expounding his account of truth. The puzzle posed by them is still with us. Quine, it seems, has failed to notice that Tarski's biconditionals, which are indispensable to his account of truth, are dispensable on his account of truth. I will return to this point below, suggesting that he should have loosened the tie to the redundancy theory even more than he did.

3. Utility and Quine's Ladder

The redundancy theory promised a deflationary view of truth. It was designed to deflate especially correspondence theories, but also epistemic and pragmatic theories. As such, it appealed to many. Quine rejects the redundancy theory. We need the truth predicate for generalizations, viz. 'Everything Archimedes says is true'.[11] Evidently, removing 'is true' from such sentences will produce nonsense: the truth predicate is not dispensable. Quine stresses this point repeatedly. Nevertheless, his own view retains the deflationary spirit—therein lies its appeal to friends of the late redundancy theory; and it is the Ladder that is supposed to do the trick: the beauty of Quine's Ladder, in the eyes of deflationists, lies in its power to allow them to reject the redundancy theory, emphasizing that the truth predicate is not redundant (on the contrary, it is useful and needed), without giving succor to advocates of inflationary accounts of truth.

In the previous section we looked at one side of the line Quine wants to draw with the *LRC*, the one concerned with dispensable uses of the truth predicate. We will now look at the other side, the one concerned with indispensable uses, with universal and existential generalizations. Quine is going to take the very feature of the truth predicate that undid the redundancy theory—its utility for expressing generalizations involving truth—and treat it as the reason why we have the truth predicate. It is the task of Quine's Ladder to explain how the truth predicate manages to play this role.

Before I turn to this, I should address a worry, if only to set it aside. When it comes to uses of the truth predicate not handled by the redundancy theory, Quine focuses on *generalizations* involving truth. But there seem to be additional cases, viz. 'The first sentence in Quine's *PL* is true', from which the truth predicate cannot simply be removed. Did Quine forget about cases of this sort? No, but for Quine they too are generalizations, because they contain definite descriptions. Following Russell, Quine construes sentences whose grammatical subjects are definite descriptions (including definite descriptions of sentences) as cases of existential generalizations. But what about cases with proper names of sentences, say '(17) is true', where some sentence has been baptized with the temporary name '(17)'?. Quine would say they too can be construed as generalizations via his assimilation of proper names to definite descriptions. Quine is committed to the view that all problem cases for the redundancy theory can be reduced to generalizations of some sort. In any case, Quine's Ladder is only equipped to handle

[11] More weighty examples should readily come to mind: 'No sentence is true but reality makes it so' (cf. *PL*: 10); 'Whatever I perceive very clearly and distinctly is true'; 'Some of the things we believe are not true'; 'A belief-producing process is reliable iff it tends to produce true beliefs'; 'Every significant sentence is either true or false' (etc.). Note, since the point at hand concerns the *expressibility* of generalizations involving truth or falsehood, false examples are as relevant as true ones.

generalizations. This may be a weak point of his approach, but I will not pursue it here.[12]

Quine's Ladder is contained in passage [D], which is at the heart of the second part of our section from *PL*. In this passage, Quine says that when we want to generalize on sentences like 'Tom is mortal or Tom is not mortal' (etc.), we ascend semantically to talk of sentences and of truth. The passage is a bit condensed. It has become customary to fold it out a little so that the crucial rung of the ladder, which Quine oddly suppressed, stands out more prominently.[13]

QUINE'S LADDER. It asks us to consider, for example, the transition from (2) to (3) to (4); it follows this up with some comments connecting these steps:

(2) Tom is mortal or Tom is not mortal; Snow is white or snow is not white; All bats are insects or not all bats are insects;…and so on.

(3) The sentence 'Tom is mortal or Tom is not mortal' is true; The sentence 'Snow is white or snow is not white' is true; The sentence 'All bats are insects or not all bats are insects' is true;…and so on.

(4) Every sentence of the form 'p or not p' is true.

We want to generalize on the items gestured at in (2). Proceeding from (2) via (3) to (4), we reach a generalization expressing a general law of logic (excluded middle), the one that was in some sense already implicit in the items gestured at by (2). Note the step to (3) and the role played, in the background, by Tarski's biconditionals, the instances of the disquotation schema:

T. The sentence 'p' is true if and only if p,

ingeniously labeled to allude to both, truth and Tarski. The instances of T, looked at from right to left as it were, mediate the semantic ascent from (2) to (3). The items gestured at in (2) do not serve up any objects generalizing over which would take us to the logical law in its full generality (see [B]). But applying the instances of the schema to the items in (2) leads to (3)—the rung not explicitly mentioned by Quine himself—which does serve up the right sort of objects, namely sentences (truth bearers), over which we can generalize to reach (4), the intended law.

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[12] See Quine 1960, §§37-38, for his assimilation of proper names to descriptions. Soames (1999: 48f.) points out that proper names of truth-bearers may pose a special problem for redundancy-inspired views because Kripke's work shows that proper names, being rigid designators, are not easily assimilated to descriptions. But Quine's strategy seems immune, for he simply proposes to reparse occurrences of a name, 'Saul', as occurrences of '*x* =Saul', where the predicate '=Saul' can be regarded as uniquely and rigidly applying to Saul. There is an irony here. If names are to be reparsed in this manner, then so are quotation names to be reparsed as, say, '*x* ='Snow is white'', with the predicate '='Snow is white'' applying uniquely and rigidly to a sentence. But then ''Snow is white' is true' turns into the generalization '(∃*x*)(*x* ='Snow is white', and *x* is true)', where the truth predicate is *not* attached to a quoted sentence: the category of quotational, hence disquotational, uses of the truth predicate threatens to dissolve.

[13] Compare Leeds 1978, pp. 121-3; Soames 1984, sec. 1; Horwich 1998 ([1]1990), pp. 3-5, 120-26; Gupta 1993, pp. 59-63; David 1994, pp. 95-7; Blackburn and Simmons 1999, pp. 11-14; Künne 2003, chap. 4.2.2.

Quine's passage [D] does not explicitly mention (3). He talks about generalizing on the items in (2) and ascending semantically to (4), but he leaps over (3) which appears to be an important step. It splits the difference between generalization and semantic ascent: semantic ascent relates (2) to (3); generalization relates (3) to (4). Why did Quine not mention (3) explicitly? I cannot explain it unless he thought that what I am about to say is too obvious for words. The step is not only important, it is all important to Quine's account. For it is the transition from (2) to (3), semantic ascent, that brings into play the instances of schema T, Tarski's biconditionals. Without the step to (3), the disquotational feature of truth would not be given any role to play in the account of generalizations involving truth. There would be no ground for saying that the truth predicate is a device of disquotation. I take it for granted, then, that it is obligatory to regard passage [D] as a condensed version of Quine's Ladder as laid out above.

Here we see how Quine takes the very feature of the truth predicate that undid the redundancy theory, its utility for expressing generalizations, and treats it as the reason why we have the truth predicate: the role the predicate plays in these generalizations is its reason for being. The Ladder is designed to show how the truth predicate manages to play this role; and since the Ladder does this on the basis of the instances of the disquotation schema, T, Quine concludes that the truth predicate is a device of disquotation.

Note the negative, deflationary, implicature of Quine's slogan: the truth predicate is a device of disquotation *and nothing more*; or maybe somewhat more cautiously: the truth predicate is a device of disquotation *and no more substantive claim about it is warranted*. Whence this negative implicature? The answer, I take it, is this. Quine thinks that generalizations involving truth are *the sole* reason why we have the truth predicate, *the* data left unaccounted for by the redundancy theory. The Ladder explains them merely on the basis of the instances of schema T, without appeal to anything more substantive about truth. So the instances of the schema constitute a sufficient account of the truth predicate, allowing us to explain all that needs to be explained. A richer conception of truth is not warranted by the need to explain the data; hence, not warranted.

It is important to be clear about the difference between (4) and T. T contains the schematic letter 'p': T is a schema; it is not a sentence; it does not say anything; only its substitution instances, e.g. (1), are sentences and say things. Though (4) also contains the letter 'p', (4) is a sentence and not a schema; it says something; it says: 'For every *x*, if *x* is a sentence of the form 'p or not p', then *x* is true'. Here the 'p' is *not* a schematic letter, instead it is part of the predicate '*x* is a sentence of the form 'p or not p'', which displays a pattern to specify the logico-syntactic *structure* or *form* of a lot of sentences. (Compare Quine's alternative rendering in [D]: 'Every alternation of a sentence and its negation is true'.) I will mark such *form-terms* by use of the formulation 'is a…of the form ___'. In view of the potentially confusing double-use of 'p'—as part of a form-term and as schematic letter—it might have been better to adopt a notation that marks the difference more boldly; but I don't like to do so because this double use is fairly standard, e.g. in the later Quine.[14]

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[14] In *PL*, p. 13, Quine is dismissive of citing schema T itself in addition to sample instances; he complains that its left-hand side merely quotes the sixteenth letter of the alphabet. By the fourth edition of *Methods of Logic* (1982), he has become much more relaxed about this: both uses of 'p' occur there side by side, with schematic uses allowed freely within quotation marks; for comment, see *Quiddities*, pp. 234-5. By the way,

Evidently, the Ladder I extracted from our section of *PL* is an exemplar, a paradigm. Other generalizations involving truth must be accounted for by variations on this theme, including of course existential generalizations (but universal generalizations will give us enough to worry about for the present paper).

Above I assumed the Quinean will rely on the (claimed) *explanatory* power of Tarski's biconditionals to explain generalizations involving truth. Quine himself does not put that much stress on explanatory considerations in this context, at least not explicitly—compare passages [B] through [G]. Although these passages are obviously intended to give an *account* of the utility of the truth predicate, explanatory terminology is not at the forefront. The introduction of more overtly explanatory considerations into discussions over deflationary views about truth is largely due to other authors, Hartry Field (1972, 1986), Stephen Leeds (1978), Hilary Putnam (1978), and Paul Horwich (1982, 1998), among others.[15]

Giving more weight to explanatory considerations allows for a resolution of the earlier dilemma. Referring to the Ladder, the Quinean can point out that the need for explaining generalizations involving truth *generates* a need for uses of the truth predicate attached to quoted sentences: according to the Ladder, the disquotation biconditionals, as well as free-standing sentences of the form ''p' is true.', are needed for the semantic-ascent step from (2) to (3). Hence, in the context of such explanations, the truth predicate is not at all dispensable, even though it occurs attached to singly given sentences explicitly before us (quotations). In such contexts, we would *not* do better simply to utter the quoted sentences, for that would destroy the explanations. Consequently, Quine would do better to drop his limited redundancy condition (*LRC*) and replace it with a weaker, subjunctive formulation—which Quine himself probably wouldn't approve of, owing to his tendency to be suspicious of subjunctives:

> *LRC**: If we didn't need the truth predicate to formulate generalizations involving truth, then we wouldn't need the truth predicate at all, because a need for using the truth predicate outside of generalizations, i.e. for predicating it of a sentence by attaching it to the quotation of the sentence, arises only in the course of explaining our use of generalizations involving truth.

This further loosens the tie to the redundancy theory. It admits that predicating the truth predicate of singly given sentences explicitly before us is *indispensable* in certain contexts, thus making room for acknowledging the crucial explanatory role assigned to Tarski's biconditionals in Quine's account of truth. (I have incorporated two simplifying assumptions mentioned earlier into this new formulation: that quotation is *the* way by which sentences are explicitly given; that all genuine problem cases for the redundancy theory can be reduced to generalizations involving truth.)

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like Quine, I will continue to ignore that 'Tom is mortal or Tom is not mortal' does not actually look like it is of the form 'p or not p': it is to be regarded as a notational variant of 'Tom is mortal or (it is) not (the case that) Tom is mortal'—some stratification of natural language is presupposed.

[15] Field, Leeds, and Putnam, however, are more concerned with the question whether the concept of truth is really needed for genuine explanations of other things that really need to be explained. This issue is broader than the one under consideration here, which concerns the explanatory role of Tarski's biconditionals in explanations of our uses of the truth predicate in generalizations.

4. A Variant Ladder and Dis-that-ism

A variant of Quine's Ladder can be employed by those who hold, *pace* Quine, that the bearers of truth are *propositions*. They will work with the propositional variant of schema T, namely schema

TP. The proposition *that p* is true if and only if p.

Starting from the same place as before, namely (2), they can construct their variant ladder:

(2) Tom is mortal or Tom is not mortal; Snow is white or snow is not white; All bats are insects or not all bats are insects;…and so on.

(3P) The proposition *that Tom is mortal or Tom is not mortal* is true; The proposition *that snow is white or snow is not white* is true; The proposition *that all bats are insects or not all bats are insects* is true;…and so on.

(4P) Every proposition of the form '*that p or not p*' is true.[16]

Deflationists who apply truth to propositions can thus take the Quinean approach on board, *modulo* their disagreement about the primary bearers of truth. For them the task of explaining how the truth predicate plays its role falls to this variant of Quine's Ladder. Of course, they would not refer to the transition mediated by the instances of TP, i.e. the step from (2) to (3P), as *semantic* ascent—they might call it *intensional* ascent instead. If they wanted to have a Quine-style slogan, theirs would not sound quite as colorful: "The truth predicate is a device of dis*that*ing".

Paul Horwich takes the instances of TP together with this variant of Quine's Ladder to account for the *raison d'être* of our notion of truth: he advocates an essentially Quinean deflationary position. Actually, this does not quite do justice to Horwich who consistently highlights explanatory considerations. He never says that 'is true' (or 'the proposition *that* ___ is true') is dispensable; he emphasizes the need for instances of TP to explain the facts involving the property of truth as well as our generalizations involving the concept of truth; and he maintains that both our concept and the meaning of the term 'true' are constituted by our inclination to accept instances of schema TP which, he says, displays the explanatorily basic regularity underlying our overall employment of the concept and the term.[17]

I often gloss over the otherwise rather important difference between sententialist and propositionalist Quineans, talking of (2), (3), (4), and T, where what I say might be applied as well to (2), (3P), (4P), and TP, *mutatis mutandis*: by and large, what goes for semantic ascent and disquotation also goes for intensional ascent and dis*that*ing.

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[16] The italics are not meant to carry any secret message; they are there only to help parsing.

[17] Cf. Horwich 1998: sec. 7; 1998a: chap. 3. An interesting alternative to Horwich's view can be found in Chris Hill's 2002, esp. chapter 2.

5. Climbing The Ladder?

Quine's Ladder is supposed to explain generalizations involving truth. The rungs of the Ladder, (2), (3), (4), together with T, are important ingredients in this explanation, but they are not the whole explanation. For that we must look to the surrounding text. We might, then, ask what sort of explanation Quine is giving us there.

Throughout our section from *PL*, Quine talks in terms of *our intending* and *doing* various things, in terms of performing a goal-directed activity or procedure. (I mimicked this talk when laying out the Ladder in Section 3.) He says: "we are seeking generality, and seeking it along certain oblique planes" (see [B]); "we can generalize on 'Tom is mortal'…without talking about truth" (see [C]); "when on the other hand we want to generalize on 'Tom is mortal or Tom is not mortal', 'Snow is white or snow is not white', and so on, we ascend [semantically] to talk of truth and of sentences" (see [D]); "to gain our desired generality, we go up one step and talk about sentences" (*PL*: 12). In *Pursuit of Truth*, he says: "the truth predicate proves invaluable when we want to generalize along a dimension that cannot be swept out by a general term [of ordinary objects]"; and a little bit later: "we cleared this obstacle by *semantic ascent*: by ascending to a level where there were indeed objects over which to generalize, namely linguistic objects, sentences" (1992: 80, 81).

What is to be made of this talk of our intendings and doings? Should we take it at face value? Say we do: then Quine is giving us a (rough) sketch of a psychological or psycholinguistic account of how we come up with universal generalizations involving truth in language and/or thought, an account of their *psychological production history*. Spelled out in more detail, the account would proceed along the following lines, *if* taken literally.

INFINITE. In the process of producing a generalization such as (4), so this story has it, we are mentally climbing the Ladder from (2) to (3) to (4):

(2) Tom is mortal or Tom is not mortal; Snow is white or snow is not white; All bats are insects or not all bats are insects;…and so on.

(3) The sentence 'Tom is mortal or Tom is not mortal' is true; The sentence 'Snow is white or snow is not white' is true; The sentence 'All bats are insects or not all bats are insects' is true;…and so on.

(4) Every sentence of the form 'p or not p' is true.

We find ourselves entertaining the infinitely many items gestured at by (2). We want to generalize universally over these items. Since we cannot do so directly (by generalizing over the ordinary objects the sentences are about), we entertain infinitely many appropriate substitution instances of the schema,

T. The sentence 'p' is true if and only if p,

which we apply to the items gestured at by (2). As a result of this infinite procedure, we come to entertain the infinitely many items gestured at by (3). We then generalize universally over the linguistic objects mentioned in these items, which results in our entertaining and maybe affirming (maybe verbally) the finite generalization (4).

But surely, this is absurd—and I have spelled it out in detail just to make clear how absurd it is. We cannot entertain the infinite sequences gestured at by (2) and (3), nor can we make the infinitely many applications of appropriate substitution instances of T. It is absurd to account for our deployment of the truth predicate in terms of our performing a certain procedure if we cannot possibly perform this procedure. Moreover, the account has the paradoxical result that, if we could do what it has us do, then there wouldn't be any need for the truth predicate after all, not on Quine's view of truth.

Leeds (1978: 121-2) uses language similar to Quine's, as does David (1994: 96-7), when discussing the Quinean view. It is most prominent, however, in Horwich, where the paradoxical turn the account takes comes out quite starkly: "We may wish to cover infinitely many propositions (in the course of generalizing) and simply can't have all of them in mind. In such situations the concept of truth is invaluable. For it enables the construction of another proposition, intimately related to the one[s] we can't identify, which is perfectly appropriate as the alternative object of our attitude" (Horwich 1998: 2-3). He then illustrates this in terms of our mentally climbing Quine's Ladder, using constructivist language that implies that we *can* have in mind all these propositions after all. Truth, he says, "enables the construction" of a generalization like (4), with the help of the instances of T, by which "the infinite series" of items under (2) "may be transformed into another infinite series of claims", (3), and "the sum of *these* claims may be captured in an ordinary universally quantified statement", i.e. (4).[18] This construction of finite (4) from infinite (3), which in turn is constructed from infinite (2), can hardly be effected without having in mind (impossibly) the infinite sequences that are being constructed and transformed. Note the paradoxical result: the very account of truth as an *Ersatz* device for something we cannot do is couched in language implying that we can do what, according to the view at hand, we cannot do and need truth as an *Ersatz* for.[19]

This paradoxical aspect comes out in finite cases too. We can use the truth predicate to say, e.g., 'Every sentence in book B is true', when we don't actually know all the sentences in B. Judging from what he did in *PL*, Quine would list a few sentences from B—let's write them as 's_1', 's_2', 's_3', for brevity—and would begin his account with the following claim about our initial intention: "When we want to generalize on 's_1', 's_2', 's_3', and so on, we ascend [semantically] to talk of truth and of sentences" (see [D]). But this very specification of our intention implies that we do not need the truth predicate in this case. If we have this "want", if we want to generalize on 's_1', 's_2', 's_3', and so on, then we are in a position to affirm each sentence of the book directly. Oddly, the story about how the generalization is useful to those who do not know all the sentences in B

[18] Horwich 1998, pp. 3-5; he uses the variant Ladder for propositions and a different example. Such constructivist language shows up in all of Horwich's presentations of the Ladder. He talks of our "wish to generalize", of our "constructing" or "composing" (4) by "reformulating" (2) as (3), or by "converting" (2) into (3), which "can be generalized" as (4), or from which (4) can be "extracted"; see Horwich 1998, pp. 122-3; 1998a, pp. 105-6; 2004, pp. 38-9, 72-3, and 141-2.

[19] One might object that we *can* have (2) and (3) in mind, just not directly, item by item, but *indirectly*, namely by having (4) in mind. Fair enough, but then Quine's Ladder collapses into (4), repeated three times, which destroys the account it was supposed to provide.

presupposes that they do know the sentences in B.[20]

This way of understanding Quine's Ladder won't do. Indeed, this seems so obvious, one might well think that taking Quine's and Horwich's words literally, as I have done for the last few paragraphs, is a gross misinterpretation. But what, then, is the literal account? Maybe something like this. Quine is telling us how a being that *can* form the infinite intention to generalize on 'Tom is mortal or Tom is not mortal', 'Snow is white or snow is not white', and so on, (or someone who *does* know each sentence in B), can use the relevant instances of T to formulate a generalization that comes in handy in case the being (or that someone) is too lazy to list all those sentences. But on this interpretation the account misses its mark again. It tells us how the truth predicate can be used by a being for whom it *is* dispensable (or can be used by us at occasions at which it is dispensable to us), instead of making intelligible how we deploy the truth predicate in the sort of generalizations (under circumstances) where it is indispensable to us.

Can we find a more plausible interpretation of the account Quine's Ladder is supposed to provide, one that discards the transfinite aspect and avoids the paradoxical turn, but otherwise manages to stay close to Quine's actual words? So far I have taken (2) and (3) as abbreviations of infinite lists, gestured at by the phrase '…and so on'. Why not take them as abbreviations of *finite* lists?

FINITE. We entertain, so the revised story goes, something much like (2) itself, a finite sequence of disjunctions, capped by our thinking 'and so on'. We form an intention to generalize. Whatever precisely this intention is, it has a finite *content*: it is an intention to generalize universally on 'Tom is mortal or Tom is not mortal', 'Snow is white or snow is not white', 'All bats are insects or not all bats are insects', *and so on*. There might be additional items on the list, the point is: the intention is finite and the 'and so on' is now part of its content. Somehow, the intention leads us to apply the appropriate substitution instances of T to the finitely many items in (2); and as a result of this finite procedure, we entertain finitely many items like the ones in (3), capped by our thinking 'and so on'. Some more steps should now be made explicit to exhibit the contribution of the general term that serves, as Quine puts it, "to sweep out the desired dimension of generality" (1992: 81). In our example, this crucial role is played by the *form-term* 'is a sentence of the form 'p or not p''. Somehow, the intention to generalize also leads us to detect the relevant feature common to the items in (2) and to select that form-term to sweep out the items in (2), thus coming to entertain the finite:

(3.1) 'Tom is mortal or Tom is not mortal' is a sentence of the form 'p or not p'; 'Snow is white or snow is not white' is a sentence of the form 'p or not p'; 'All bats are insects or not all bats are insects' is a sentence of the form 'p or not p'; *and so on.*

This is interwoven with (3) to form the equally finite:

[20] In *Pursuit of Truth*, Quine specifies our intention differently. Looking at another example, namely the conditional 'If time flies then time flies', he says: "We want to say that this compound continues true when the clause ['time flies'] is supplanted by any other; and we can do no better than to say just that in so many words, including the word 'true'" (1992: 81). With this specification of our initial intention, the Ladder does not take on the paradoxical aspect, but it does not get off the ground either.

(3.2) 'Tom is mortal or Tom is not mortal' is a sentence of the form 'p or not p' and is true; 'Snow is white or snow is not white' is a sentence of the form 'p or not p' and is true; 'All bats are insects or not all bats are insects' is a sentence of the form 'p or not p' and is true; *and so on*.

We then generalize universally over the linguistic objects mentioned in (3.2), reaching (4), 'Every sentence of the form 'p or not p' is true', by way of a leap—a leap akin to induction—from finitely many cases to a universal generalization.

The epistemic status of this leap is not under discussion, for we are presently concerned with an account of our deployment of the truth predicate when producing generalizations, however reasonable or unreasonable the result may be epistemically speaking. This remark may strike you as superfluous, thinking that we surely won't go wrong with the generalization 'Every sentence of the form 'p or not p' is true'. But this feature is an artifact of Quine's choice of a target generalization which happens to be a law of logic. Other universal generalizations we employ in language/thought, taking the form 'Every sentence that is F is true', may well be false or, if true, wildly unreasonable, given the startup list from which we generalize.[21]

This revised account is of course no more than a sketch; fundamental questions remain: How does any of this work in detail? What makes us "select" one rather than another general term to sweep out the desired dimension of generality? What makes us generalize to (4) rather than to: 'Every true sentence is of the form 'p or not p''? But these are the sorts of questions that always arise regarding generalizations; they don't pertain specifically to generalizations involving truth. The revised account (however sketchy) has the considerable merit that it avoids attributing infinite thought processes to us, and it avoids what I called the paradoxical turn taken by the literal reading of Quine's account. Moreover, it stays faithful to Quine's (and Horwich's) words insofar as it construes semantic ascent as a psychological activity or process, or the result of such an activity or process.

But the account is incomplete. We can use generalizations like 'Everything B says is true', even when we don't know *any* of the sentences contained in some book, or uttered by some person, B. In cases of this sort, we seem to have no startup list (along the lines of (2)) from which to generalize at all. One could try to meet this worry with the suggestion that we do have a startup list in such cases after all, namely one that contains (finitely many) conditionals such as: 'If B says 'snow is white' then snow is white'. Applying the relevant instances of T to these conditionals, we produce (finitely many) attributions of truth. Deploying the general form-term 'is a sentence of the form 'If B says 'p' then p'' to sweep out the desired dimension of generality, we generalize to: 'Every sentence of the form 'If B says 'p' then p' is true'.

But this points to a shortcoming of the account. It invariably issues universal

[21] Starting from the items in (2), someone might arrive at the false generalization 'Every sentence of the form 'p or q' is true'. An account of the psychological production history of generalizations involving truth must cover this sort of faulty process too. Note that Horwich (1998) is often concerned with arguing that all *facts* involving truth, including all general facts involving truth, can be *explained* on the basis of the instances of T, or rather TP. This is an enterprise different from the one we are presently engaged in; it is not envisaged by Quine. For critical discussion of this enterprise, see Gupta 1993a, and David 2002.

generalizations beginning with the words: ‘Every sentence of the form…’. Yet there are many universal generalizations involving truth that do not begin with these words. The generalization that was supposed to be explained in the previous paragraph, ‘Everything B says is true’, is a case in point: the account offered there was off target. It seems an extension of the procedure is needed. So far I have assumed, following Quine’s lead, that we always apply T from outside, to whole items on the startup list: call this *the outer method*. On the extended procedure, we on occasion apply T inside the items on the startup list, to one (or more) of their components: call this *the inner method*. To illustrate, assume again that the startup list contains such sentences as:

> If B says ‘snow is white’ then snow is white;
> If B says ‘the earth rests’ then the earth rests.

On the inner method, the relevant instances of T are not applied to each conditional as a whole, as in the previous paragraph, but only to their consequents, which yields:

> If B says ‘snow is white’, then ‘snow is white’ is true;
> If B says ‘the earth rests’, then ‘the earth rests’ is true.

We then quantify-in, thereby generalizing to: ‘For every *x*, if B says *x*, then *x* is true’, i.e. ‘Everything B says is true’.[22]

I have not found any applications of the inner method in Quine. Still, it does seem needed to handle generalizations not beginning with the words ‘Every sentence of the form…’. If so, the paradigm Ladder from our section of *PL* turns out to be potentially misleading: Quine’s Ladder will have to be understood as being rather more versatile than the paradigm suggests, the inner method counting as one of its variations.[23]

The account is still not complete. We have not checked whether it can handle more complicated cases; and we have not even glanced at existential generalizations. I will set these aside for now.

The envisaged account is at least broadly empirical: it advances an empirical hypothesis, supposed to cover all occasions at which we entertain, and maybe also utter, universal generalizations involving truth.[24] According to this hypothesis, our productions of such generalizations are caused or motivated by conscious or, rather more likely, subconscious mental processes that proceed through steps like the ones sketched above

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[22] The sweeping-out term would in this case be ‘thing’, or better, ‘is a sentence’, which could be regarded as being suppressed in our version of the generalization.

[23] It is however not clear how to think of the “intention to generalize” that would trigger application of the inner rather than the outer method. Also, the inner method is less mechanical than the outer, requiring more ingenuity on our part, for it allows that T be applied selectively, to one or more components of the items on the startup list, as the need arises. The method is hinted at in Field 1986, p. 57, and appears on a few occasions in Horwich 1998, e.g. pp. 3 and 123, who usually employs the outer method even though it frequently issues generalizations that differ from the ones he set out to explain. The inner method appears a bit more prominently in Field 1994, sections 3 and 5, and Horwich 2004, p. 42; see also Gupta 1993, and McGee 1993, pp. 96-7, who describe Quine’s view in terms of the inner method.

[24] On various occasions generalizations involving truth might be entertained on the psychological basis of other generalizations involving truth; the former will then be explained indirectly, via the explanation of the latter which will proceed in terms of the Ladder.

for (2), (3), and (4), or some sufficiently close variation thereof—these mental processes should be seen as, or at least modeled as, processes operating on inner sentences, i.e. on sentences of *the language of thought*: we certainly don't verbally utter the steps of Quine's Ladder before uttering generalizations involving truth. Since the account offers an empirical hypothesis, it needs empirical evidential support. As far as my own conscious processing is concerned, my introspection does not provide much support. When I say or think a universal generalization involving truth, I usually just say or think it. I do not notice going through stages like the ones depicted in Quine's Ladder. Of course, the processing might not be (easily) accessible to introspection; it might be subconscious processing. I do not know whether support for subconscious processing of this sort can be found in cognitive psychology or psycholinguistics. Quine himself does not provide any (neither does Horwich). Still, the account is at least broadly empirical in nature and it seems to avoid the main problems of the absurd infinite account.

But I have glossed over a question concerning the role played by the instances of T, Tarski's biconditionals. The finite stories outlined above may not require a very large number of them, but these stories account for only three generalizations involving truth. There are very many more such generalizations to be accounted for, each one requiring a finite number of these biconditionals. It is highly likely that the required total number of T-biconditionals that must be available to us, according to the present account, will be very large. The question arises, then, how all these biconditionals are supposed to become available to us.

Initially, one might think the account should address this by maintaining that we have a standing *belief* with a general content, one that subsumes all the particular T-biconditionals, so that various batches of them become available to us by a process of inference (instantiation) from this general belief. But it is hard to see what this belief could be. It should have something to do with schema T; but note that the following,

(5) Jane believes *that 'p' is true if and only if p*,

does not ascribe any belief to Jane. It is itself a mere schema; each of its substitution instances ascribes a particular belief to Jane: Jane believes *that 'snow is white' is true if and only if snow is white*; Jane believes *that 'Tom is mortal or Tom is not mortal' is true if and only if Tom is mortal or Tom is not mortal*; Jane believes *that '2 + 2 = 5' is true if and only if 2 + 2 = 5*; and so on to infinity. The following,

(6) Jane believes *that every instance of the schema ''p' is true if and only if p' is true*,

does ascribe a single belief to Jane; but it is of little use to the Quinean. It dethrones the T-biconditionals in favor of the generalization: 'Every instance of the schema ''p' is true if and only if p' is true'. Moreover, since this is a generalization involving truth, it is among the items that are supposed to *be* explained by Quine's Ladder and cannot be used as part of the explanation the Ladder is supposed to provide. Finally, as Gupta (1993: 72-3) in effect points out, (6) cannot do its job anyway. To get T-biconditionals from the generalization, Jane needs to apply *T-biconditionals*, namely to the instances of ‘‘p’ is true if and only if p’ is true,

to get at the instances of

‘p’ is true if and only if p.

Calling upon (6) to explain how indefinitely many T-biconditionals become available to us from finite resources would be quixotic.

So, how do all these T-biconditionals become available to us? It is tempting to talk of dispositions at this point: each person who can entertain generalizations involving truth has the disposition(s) to employ batches of relevant T-biconditionals as the need arises. Quine might be content to leave this unexplained, as a brute disposition. Other Quineans might want to do a bit better by picking up a suggestion made by Hartry Field and Chris Hill. The idea is, roughly, that we have this disposition because we have schema T itself in our minds, as Hill puts it, we are “cognitively linked” to T: *not* by way of believing it—as pointed out above, T, being a schema, does not specify the content of any belief—but we nevertheless have T in our minds in some manner which allows us to make inferences from it, so that we can infer sufficiently many of Tarski’s biconditionals from the schema by substitution. This is, again, a broadly empirical hypothesis; I am not aware of any empirical evidence having been cited that speaks for or against it.[25]

My attempt to understand Quine’s Ladder, taking Quine by his own words, has encountered some difficulties, but they do not seem insurmountable. The resulting account of how we deploy universal generalizations involving truth in language and/or thought is broadly empirical in nature, which seems a good thing. On the other hand, no actual empirical evidence has been cited (from any branch of psychology) supporting the empirical hypotheses advanced by the account. This may well be considered a bit worrisome.

You may have been wondering how the psychological story I have outlined, based on Quine’s own words, fits with his overall views in philosophy of psychology. I am not entirely sure; but at least it is in keeping with his practice. Remember the third chapter of *Word and Object*, it offered an account of a stage in the child’s linguistic development—an account which Quine himself described as “imagined”, fullness of “experimental detail” not being an objective (1960: 125). In *The Roots of Reference*, he expanded on this practice, giving a much longer and more detailed psychological account, couched partly in mentalistic language, supported by little or no empirical evidence. He referred to this as “psychogenetic speculation” and “imaginative reconstruction” (1972: 92, 101). He also commented on the “mentalistic idiom”, saying

[25] See Field 1994, sec. 3, and 2001, sec. 1. The way in which Field introduces this idea does not fit smoothly into the present picture. He describes it from the point of view of designing a “formalism” such that T itself is “part of the language, rather than merely having instances that are part of the language”; and he suggests “to incorporate schematic letters for sentences into the language, reasoning with them as with variables” (1994: 115). For our purposes, “the language” in question would be the language of thought. But then talk of “incorporating” schematic letters seems a bit odd: we do not design our language of thought like we design a formalism. Schematic letters, such as ‘p’, and the schema T itself, must have been “incorporated” into our minds for us, say, by mother nature and mother working together. For Hill’s version of the suggestion, see his 2002, pp. 68-9.

that it "has its uses as a stimulant" (1972: 33): "Conjectures about internal mechanisms are laudable insofar as there is hope of their being supported by neurological findings" (1972: 37). It appears that, for better or for worse, the account Quine sketches in our section from *PL* is of this general sort: Quine's Ladder is an imaginative reconstruction of the psychological processes that lead to generalizations involving truth, couched in mentalistic language, to be born out by future scientific findings.

6. Affirming A Lot of Sentences

Quine says we need the truth predicate for generalizations such as (4): 'Every sentence of the form 'p or not p' is true.' For what do we need such generalizations? Here is an often quoted passage I have not quoted yet, together with its immediate continuation (already quoted as [I]); it is from page 12 of *PL*:

> [H] We may affirm the single sentence by just uttering it, unaided by quotation or by the truth predicate; but if we want to affirm some infinite lot of sentences that we can demarcate only by talking about the sentences, then the truth predicate has its use. We need it to restore the effect of objective reference when for the sake of some generalization we have resorted to semantic ascent.

Quine's example of such an infinite lot of sentences we might want to affirm was the one gestured at by:

(2) Tom is mortal or Tom is not mortal; Snow is white or snow is not white; All bats are insects or not all bats are insects;…and so on.[26]

Quine's sample generalization was (4), which I rephrase in a style closer to the notation of first-order predicate logic—the canonical notation, according to Quine:

(4) For every *x*, if *x* is a sentence of the form 'p or not p', then *x* is true.

Quine is telling us in [H] that (4) will give us what we want, if we want to affirm the infinite lot of sentences gestured at by (2). How so? He does not quite say himself, but the natural interpretation is this: We manage to affirm the infinite lot of sentences gestured at in (2) *by* affirming (4)—slightly more explicitly:

CL. By affirming (4) we affirm each of the infinitely many sentences gestured at in (2).

CL functions as a *closure principle* for affirmation. Apparently, it has to be understood as presupposing a distinction between two kinds or subspecies of affirmation: *direct* and *indirect*. For Quine wants to say that we *cannot* affirm each of the infinitely many sentences gestured at by (2), which is why we need (4) and the truth predicate. CL, on the other hand, says we *can* affirm each of the infinitely many sentences gestured at

[26] Granting Quine that we can want to affirm such an infinite lot of sentences, namely by way of an intention whose content is finite; see the previous section.

by (2). So we have to distinguish between direct and indirect affirmation: we cannot affirm the sentences gestured at by (2) *directly*; we can affirm them only *indirectly*, namely by affirming (4), which we can affirm directly. Direct affirmation is a psychological notion: we can actually entertain (4) in our minds and utter it with our mouths. Indirect affirmation, on the other hand, extends the notion of affirmation beyond the psychological: we cannot actually entertain or utter more than a small sample of all the sentences that we can affirm indirectly according to CL.[27]

CL seems crucial to Quine's view, for it tells us that the universal generalization involving the truth predicate does indeed serve the kind of need Quine has identified in passage [H]. Without CL, or something very much like it, Quine would be in a rather peculiar position: "We need the truth predicate for generalizations that we need to affirm infinite lots of sentences, though these generalizations do not actually serve this need"—a peculiar position indeed.

Let us begin consideration of CL with the following idea (primarily because it helps clarifying the situation). Maybe Quine advocates this particular closure principle on the basis of a general closure principle, saying that affirmation is closed under *logical consequence*: If you affirm x, and if y is a logical consequence of x, then you affirm y; and if $y \neq x$, then you affirm y indirectly. This principle yields the intended result: if you affirm (4), then you affirm (indirectly) each of the infinitely many sentences gestured at by (2). But it yields this result for unintended reasons, simply because the sentences gestured at by (2) are *logical truths*, hence logical consequences of any arbitrary sentence. It does not matter whether you affirm (4), or (4)'s negation, or something entirely unrelated: according to the present principle, you affirm the infinite lot of sentences gestured at by (2), along with each and every other logical truth, no matter what you affirm. The principle is much too broad. It undermines the idea that affirming (4) is needed for what Quine says it is needed for. It just happens to get the intended result because of the special nature of Quine's chosen examples, (4) and (2).

Quine, writing a book on logic, has understandably chosen a law of logic, the law of excluded middle, (4), as his example of a universal generalization involving truth, which has naturally led him to the infinite lot of logical truths gestured at by (2). But these examples, owing to their special nature, tend to import distracting issues not germane to the topic at hand. Quine's claims must hold generally and not just with respect to generalizations that are also laws of logic and infinite lots of sentences that are also logical truths. We must bracket these idiosyncratic features of Quine's examples.[28]

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[27] Think of this in terms of processing sentence-tokens of *Mentalese*, the language of thought. A person who *affirms* (4) has a token of (4)—or rather of a Mentalese analogue of (4)—in her belief-box. By CL she thereby *affirms* each of the infinitely many sentences gestured at by (2); but she does not have Mentalese tokens of all these sentences in her belief-box: the second use of 'affirms' projects this term far beyond the first, far beyond what might be underwritten by actual psychological processing going on in the person's mind or brain. (Our person will have a few samples of the sentences gestured at by (2) in her belief-box: she used those as a finite startup list when generalizing to (4); see the story outlined in the previous section.) One might try to bring indirect affirmation within the ambit of the psychological by suggesting that it involves no more than a *disposition* to affirm directly. But this is not promising. Very many of the sentences gestured at by (2) are of such mindboggling complexity that we have a disposition to get completely confused (or die) long before we have even processed the first disjunct.

[28] It might have been better if Quine had chosen, say, the infinite lot of arbitrary disjunctive sentences and

So let us bracket the fact that the sentences gestured at by (2), being logical truths, are logical consequences of (4) in the trivial sense of being logical consequences of anything. One might next try the idea that Quine advocates CL based on a narrower but still quite general closure principle according to which we affirm (indirectly) the logical consequences, in the *non-trivial* sense, of what we affirm. But this principle is too narrow. The sentences under (2) are not non-trivial logical consequences of (4). To put this differently, sentences of the form '…' are not in general logical consequences of generalizations of the form 'For every *x*, if *x* is a sentence of the form '…', then *x* is true'. This fails for two reasons which it will be helpful to distinguish.

Remember rung (3) of Quine's Ladder:

(3) The sentence 'Tom is mortal or Tom is not mortal' is true; The sentence 'Snow is white or snow is not white' is true; The sentence 'All bats are insects or not all bats are insects' is true;…and so on.

We can divide CL into two parts:

CL-1. By affirming (4) we affirm each of the infinitely many sentences gestured at in (3).

CL-2. By affirming each of the infinitely many sentences gestured at in (3) we affirm each of the infinitely many sentences gestured at in (2).

I am mainly interested in CL-1, but let us consider CL-2 first, where for the moment we are not worried about how we manage to affirm each of the infinitely many sentences gestured at by (3). The sentences gestured at by (2) are, of course, logical consequences of the sentences under (3), but only in the distracting, trivial sense which we should bracket as irrelevant for present purposes. They are logical consequences in the non-trivial sense not of the sentences under (3) themselves but of their conjunctions with the relevant instances of schema T, Tarski's biconditionals. Obviously, Quine subscribes to CL-2 based on his claim that the truth predicate is a device of disquotation. CL-2 is just a collective version of this claim, applied to the sentences gestured at by (3) and (2): By affirming ''Tom is mortal or Tom is not mortal' is true' we affirm 'Tom is mortal and Tom is not mortal'; By affirming ''Snow is white or snow is not white' is true' we affirm 'Snow is white or snow is not white'; and so on.

Some would see these *pragmatic* facts about affirming as flowing from *semantic* facts about meaning: ''Snow is white' is true', they would say, *means the same as* 'Snow is white'—I am reverting to the standard example for convenience. Advocates of this meaning claim don't typically argue for it (it is hard to see how one could argue for it); they treat it as intuitively obvious, a datum. Others do not find this so obvious. On the contrary, they find it obvious that ''Snow is white' is true' does *not* mean the same as 'Snow is white'. They point out that the former talks about a sentence and attributes truth

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the false generalization 'Every sentence of the form 'p or q' is true'; that might have helped avoiding interference from distracting idiosyncrasies of the examples.

to it while the latter only talks about snow and says that it is white.

What is Quine's position? One expects him to say that this is a non-issue because it isn't really about 'is true' but about 'means the same as', the clash of intuitions merely reflecting the bankruptcy of our notions of *meaning* and *synonymy*. However, at times Quine himself makes pronouncements suggesting an inclination on his part to side with those who have the synonymy intuition:

> for to say that *S* is true is simply to say *S*. (Quine 1951: 4)
>
> To say that the statement 'Brutus killed Caesar' is true, or that 'The atomic weight of sodium is 23' is true, is in effect simply to say that Brutus killed Caesar, or that the atomic weight of sodium is 23. (Quine 1960: 24)

Prima facie, such pronouncements suggest that the two sides of Tarski's biconditionals are taken to say the same thing, to be synonymous or at least to express the same proposition (but Quine rejects propositions). One would like to ask Quine: What is this

> *to say that__is in effect simply to say that…*

relation? and: If it does not indicate that the sentences thus related are synonymous or say the same thing, Why does it hold? Quine doesn't say.

He did, on the other hand, remark "that there is no need to claim, and that Tarski has not claimed, that [Tarski's biconditionals] are analytic" (1953: 137). He even said that Church-Langford translation-reasoning "can be used to show that 'There are no unicorns' is not strictly or analytically equivalent to ''There are no unicorns' is true in English'", adding that Tarski's paradigm was not intended to assert analytic equivalence (1956: 196). Later he finds that reasoning inconclusive.[29] But since this later verdict arises from his misgivings about sameness of meaning, it does not indicate that he would regard Tarski's biconditionals as analytic or would take their two sides to mean the same, the above pronouncements notwithstanding,

Concerning CL-2 this is, I think, as far as we can go within Quine's world. The pragmatic 'by'-claims about affirmation and truth, claims of the form 'By affirming ''…' is true' we affirm '…'', are almost rock-bottom. We can take one more step and observe that, according to Quine, claims of this form hold because *to say that* '…' is true *is in effect simply to say that*…—and now we have really reached rock-bottom. All we are told about this relation is that it should *not* be taken to indicate that Tarski's biconditionals are analytic or that their two sides mean the same. On this topic, nothing more is forthcoming from Quine.[30]

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[29] Church-Langford translation-reasoning (Church 1950) applied to the case at hand: 'There are no unicorns' and ''There are no unicorns' is true in English' do not mean the same, because their respective German translations, 'Es gibt keine Einhörner' and ''There are no unicorns' ist wahr auf Englisch', do not mean the same: neither provides enough information to enable a German ignorant of English to infer the other. Judging from §44 of his 1960, Quine would call this inconclusive because it presupposes that the English sentences and their German translations *mean the same*—a notion not fit for conclusive arguments.

[30] Field, who shares Quine's skepticism about synonymy, holds that, for any utterance *u* that a person understands, the claim that *u* is true is cognitively equivalent to *u* for that person, relative to the existence of *u*; where *cognitive equivalence* is an epistemic relation, to be thought of in terms of "fairly direct" and

CL-2 is concerned with affirmation and truth; it is crucial to CL, the claim that by affirming (4) we affirm each of the infinitely many sentences gestured at in (2). The other closure principle, CL-1, is equally crucial to this claim:

CL-1. By affirming (4) we affirm each of the infinitely many sentences gestured at in (3).

This principle is only incidentally concerned with truth, it is essentially concerned with affirmation and universal generalization. Note the division of labor: CL-2 is about semantic descent, it highlights the cancellatory or disquotational force of (4)'s truth predicate; CL-1, on the other hand, highlights the generalizing function of the universal quantifier heading (4).[31]

Whence CL-1? Consider the following more general claims: (*a*) By affirming a universal generalization we affirm the conjunction of all of its instances; and (*b*) By affirming a conjunction we affirm each of its conjuncts. The second seems plausible enough. The first seems rather more worrisome. But let us grant it for now. Putting (*a*) and (*b*) together yields: By affirming a universal generalization we affirm each of its instances. Let that be granted: it does not take us to CL-1.

The instances of our universal generalization, the law of excluded middle,

(4) For every *x*, if *x* is a sentence of the form 'p or not p', then *x* is true,

are all of them conditionals:

If 'Tom is mortal or Tom is not mortal' is a sentence of the form 'p or not p', then

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"more or less indefeasible" inferences licensed by the persons "inferential procedures"; see Field's 1994, pp. 105-6. Horwich holds that the instances of T's propositional sibling, TP, "implicitly define" the truth predicate and are "necessary", "a priori", and "conceptually basic"; he nevertheless maintains that 'The proposition *that snow is white* is true' does *not* mean the same as 'Snow is white'; see Horwich 1998, pp. 120-29. Gupta argues that the Quineans' account of the role of the truth predicate commits them to making implausibly strong meaning claims about the instances of T and/or TP, even if they don't like to admit it; see his 1993. By the way, pace Quine, Tarski himself did make meaning claims about his biconditionals. He said, for example, that they "explain in a precise way, in accordance with linguistic usage, the meaning of phrases of the form '*x* is a true sentence'" (Tarski 1935: 187); and many years later: "By saying that S [= 'Snow is white'] is true we mean simply that snow is white" (Tarski 1969: 103).

[31] Some undermine this division of labor, saying that for the Quinean the truth predicate *itself* is a device of generalization, namely a device of infinite conjunction or disjunction. According to this idea, which relies on formulation T*, foreshadowed by Ramsey (1928: n. 7) and rejected by Tarski (1935: 159), the function of the truth predicate can be exhibited by:

T*. *x* is a true sentence if and only if, for some p, *x* = 'p' and p,

where 'for some p' is a quantifier of sorts, and the right-hand side can be understood as "encoding" the infinite disjunction: '(*x* = 'snow is white' and snow is white) or (*x* = 'grass is green and grass is green) or (*x* = 'snow is green' and snow is green) or…'. T*, so the idea, shows that the truth predicate functions as some sort of quantifier, a device of generalization; see Field 1986, pp. 57-8, and 1994, p. 120; Horwich 1998a, p. 104; and David 1994, p. 97. This construal of the Quinean view is distinctly *not* Quine's who would denounce the phrase 'for some p' as a pseudo-quantifier not fit for respectable use: generalization, according to Quine, is exclusively a matter of the ordinary, *objectual* quantifiers, as canonized in the notation of first-order predicate logic.

'Tom is mortal or Tom is not mortal' is true; If 'Snow is white' is a sentence of the form 'p or not p', then 'Snow is white' is true; If 'Snow is green' is a sentence of the form 'p or not p', then 'Snow is green' is true; If 'Snow is white and Snow is not white' is a sentence of the form 'p or not p', then 'Snow is white and snow is not white' is true;…and so on.

They are all true: many talk about sentences of the form 'p or not p'; many do not—they talk about sentences of all forms.

According to (*a*) & (*b*), when we affirm (4), we affirm all these conditionals which are (4)'s instances.[32] Consider now the sentences gestured at by (3): ''Tom is mortal or Tom is not mortal' is true', ''Snow is white or snow is not white' is true', and so on. They are *not* among the instances of (4). But why go to such length to stress this point? Surely, Quine would not think otherwise; he would not mistake the sentences under (3) for instances of (4). Surely, he would not base CL-1 on the idea that by affirming (4) we affirm all of its instances. I wonder. Remember passage [E]:

> [E] What prompts this semantic ascent is not that 'Tom is mortal or Tom is not mortal' is somehow about sentences while 'Tom is mortal' and 'Tom is Tom' are about Tom. All three are about Tom. We ascend only because of the oblique way in which the instances over which we are generalizing are related to one another.

Three pages later, Quine refers again to the law of excluded middle, our (4), saying:

> We saw why it was phrased in linguistic terms: its instances differ from one another in a manner other than simple variation of reference. The reason for the semantic ascent was not that the instances themselves, e.g. 'Tom is mortal or Tom is not mortal', are linguistic in subject matter… (*PL*: 15)

It seems Quine does, after all, mistake the sentences from (3) for instances of (4). Admittedly, what he is referring to here as *an instance* of (4) is one of the items from (2) rather than (3)—I assume this is because he has silently disquoted the relevant item from (3), i.e. disquoted ''Tom is mortal or Tom is not mortal' is true' to 'Tom is mortal or Tom is not mortal'. It does not matter: the sentences from (2) are just as much *not* among the instances of (4) as the sentences from (3).

The problem may derive from Quine's choice of examples. (4) is a law of logic, the law of excluded middle. But one also hears 'p or not p' referred to as the law of excluded middle. Quine taught us that this is a mistake: the latter is no law; it is a mere schema; it says nothing. Still, 'Tom is mortal or Tom is not mortal' is a substitution instance of that schema: maybe Quine, despite his better self, has slipped into thinking of the schema as the law, thus slipping into thinking of 'Tom is mortal or Tom is not mortal'

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[32] Quine: "An instance of a quantification exactly matches the old open schema that followed the quantifier" (1982: 180); "So a *generalized conditional* [a universal generalization] can in full accordance with common usage be construed as affirming a bundle of material conditionals" (1982: 22); a universal generalization "is not itself a conditional but has the effect of simultaneous affirmation of a vast array of conditionals" (1951: 18). (This phrase again: "has the effect"—What does Quine mean by it?)

as an instance of (4).[33]

The problem also shows up in Horwich. Supposing that we wish to state the law of excluded middle, he presents us with:

> Everything is red or not red, and happy or not happy, and cheap or not cheap,…and so on,

and says our task is "to find a single, finite proposition that has *the intuitive logical power* of the infinite conjunction of all these *instances*" (1998: 3; my emphases). The concept of truth, he continues, provides the solution, namely by way of the universal generalization:

> Every proposition of the form: ⟨everything is F or not F⟩ is true. (Horwich 1998: 4)

But the conjuncts of the infinite conjunction are not among the instances of this generalization, and the generalization does not have the logical power of the infinite conjunction: it is much weaker; its instances are all conditionals of the form 'if x is of the form ⟨everything is F or not F⟩, then x is true'.

At another point Horwich says that from the generalization "we can derive (given the truth schemata) all the statements we initially wished to generalize" (1998: 123). But the statements we initially wished to generalize were the ones from the conjunction above; they are not derivable from the universal generalization, not without appropriate true premises of the form 'x is of the form ⟨everything is F or not F⟩'. Well, actually, they *are* derivable from the generalization because they are all logical truths: they are trivially derivable from anything. Again the special nature of the chosen examples intrudes to confuse things. We have to keep bracketing the examples' idiosyncrasies and remember that the derivability claim will fail as soon as we switch to alleged "generalizations" of conjunctions of items other than logical truths.[34]

Let us return to Quine. The instances of (4) are conditionals of the form 'if x is a sentence of the form 'p or not p', then x is true'. The sentences gestured at by (3) are not among them. How do they relate to (4)? They are the consequents of just those instances of (4) whose antecedents are true, i.e. whose antecedents say *of* a sentence that actually is of the form 'p or not p' *that* it is of the form 'p or not p'. To get to CL-1, Quine needs the following closure principle for affirmation:

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[33] Quine once suggested that 'p or not p' might be said "to illustrate" the law of excluded middle, pointing out of course that it must not be identified with it; cf. 1951, p. 51. Note, by the way, that a logical truth, according to Quine, is (roughly) a sentence that is true and remains true under all substitutions of its non-logical constituents; cf. *PL*, p. 50. So 'Tom is mortal or Tom is not mortal' is a logical truth: (4), although a law of logic, is not.

[34] An epistemic version of the same confusion shows up in Leeds (1978: 121): "It is not surprising that we should have use for a predicate P with the property that '"____" is P' and '____' are always interdeducible. For we frequently find ourselves in a position to assert each sentence in a certain infinite set z (for example when all the members of z share a common form); lacking the means to formulate infinite conjunctions, we find it convenient to have a single sentence which is warranted precisely when each member of z is warranted. A predicate P with the property described allows us to construct such a sentence: $(x)(x \in z \rightarrow P(x))$." Gupta (1993) argues that the Quineans confuse universal generalizations with their instances. It seems, rather, that they confuse non-instances of universal generalizations with instances.

CL-0. By affirming (4) we affirm each of the infinitely many consequents of those instances of (4) whose antecedents are true, i.e. by affirming (4) we affirm 'is true' of each of the infinitely many sentences that are of the form 'p or not p'.

In terms of more general principles, Quine needs not only the two mentioned earlier: (*a*) By affirming a universal generalization we affirm the conjunction of all of its instances; and (*b*) By affirming a conjunction we affirm each of its conjuncts; he also needs (*c*) By affirming a conditional whose antecedent is true we affirm its consequent. Putting these together gives a generalized version of CL-0: By affirming a universal generalization we affirm each of the consequents of those of its instances whose antecedents are true, i.e., if you affirm 'Everything that is F is G', then everything that is in fact F is such that you affirm of it that it is G. The new principles make highly questionable claims about affirming.

Take (*c*). When one affirms a conditional, one does not thereby affirm its consequent, and the issue of whether its antecedent is true or not does not seem to enter into it at all. You affirm 'If I have the winning ticket, then I am rich'. As luck would have it, you do indeed have the winning ticket, though you have no idea that it is the winning ticket, you think it isn't, and you have lots of reasons for thinking that it isn't. Did you affirm 'I am rich', or at least that you are rich? It seems not.

Take the generalized version of CL-0. Ralph affirms 'Everyone working for the CIA is a spy'. Entirely unbeknownst to him, his neighbor, Sally Ortcutt, is in fact working for the CIA. Did he affirm 'Sally is a spy', or affirm of Sally that she is a spy, or at least affirm that Sally is a spy? It seems not.

Quine once observed that there are two readings of 'Ralph believes that someone is a spy': the *notional* reading, viz. 'Ralph believes there are spies', and the *relational* reading, viz. 'There is someone whom Ralph believes to be a spy'. He pointed out that the difference between them "is vast" (1956: 186). The difference between the notional 'Ralph believes that everyone who works for the CIA is a spy' and the relational 'Everyone who works for the CIA is such that Ralph believes him/her to be a spy' is just as vast. Note that switching from 'affirms' to 'believes' is not beside the point at this point. The former talk is prominent in my discussion merely because Quine uses it in our section from *PL*, taking sentences as the vehicles of truth. In a broader setting, there would be a parallel discussion conducted in terms of believing propositions. For those who do not share Quine's aversion to such talk but are otherwise Quineans about truth, e.g. Horwich, principles (*a*) through (*c*) would be rephrased accordingly, resulting in a general principle that gives license to systematic confusion of notional or *de dicto* belief attributions and relational or *de re* belief attributions.

The objections just canvassed seem quite decisive as long as affirming (and believing) has its ordinary sense. There is, however, a complication. When introducing CL, the affirmation-closure principle that occasioned this whole discussion, I pointed out that it requires drawing a distinction between affirming something *directly* and affirming something *indirectly*—because Quine wants to say that we cannot affirm (directly) the sentences gestured at by (2) but can affirm them (indirectly) by affirming (4). One might now try to defend our new closure principles by appeal to this distinction: if we affirm (directly) 'Everything that is F is G', then everything that is in fact F is such that we affirm (indirectly) of it that it is G; and: if we affirm (directly or indirectly) a conditional whose antecedent is true, then we affirm (indirectly) its consequent. It is hard to argue with this because of the unexplained nature of *indirect affirmation*. Is it merely stipulated to be any relation *R* such that, when we affirm a conditional whose antecedent is in fact true, we stand in *R* to its consequent? We might also ask, again rhetorically: According to Quine what we wanted was to *affirm* an infinite lot of sentences: Why does affirming a universal generalization involving truth count as getting what we wanted, if by doing so we merely "indirectly affirm" each of those sentences? Why does that show that the truth predicate serves the need Quine has identified?

Maybe one could construe this "indirect affirmation" as some sort of *commitment*, broadly conceived: by affirming a universal generalization we are committed to those consequents of its instances whose antecedents are in fact true; by affirming a conditional whose antecedent is in fact true we are committed to its consequent.[35] But again this commitment, e.g., to the consequent of an affirmed conditional, without any sort of cognitive attitude on our part to the antecedent, is a strange affair. Quine, albeit in another context, seems to agree: "An affirmation of the form 'if *p* then *q*' is commonly felt less as an affirmation of a conditional than as a conditional affirmation of the consequent. If, after we have made such an affirmation, the antecedent *turns out true*, then we consider ourselves committed to the consequent, and are ready to acknowledge error if proven false" (1982: 21; my emphasis). What Quine means here, I take it, is that we are committed to the consequent of an affirmed conditional, *if* the antecedent turns out true as far as we can tell, *if* we believe it or assent to it.

What is missing from these closure principles is a clause adding that we stand in an appropriate cognitive relation to the antecedent of the conditional, or to the relevant antecedents of the conditionals that are the instances of a universal generalization. However, if such a clause is added, Quine's project runs into difficulties. Consider CL-1 which said:

> CL-1. By affirming (4) we affirm each of the infinitely many sentences gestured at in (3).

If we expand this in the manner that seems to be required, adding a clause to the effect that we at least believe or affirm the relevant antecedents of the conditionals that are the instances of (4), we get the following:

> By affirming (4), i.e. by affirming 'For every *x*, if *x* is a sentence of the form 'p or not p' then *x* is true', *and* affirming each true sentence of the form '*x* is a sentence of the form 'p or not p'', we affirm each of the infinitely many sentences gestured at in (3).

Sadly, the clause introduced by '*and*' takes us back where Quine started from. There are infinitely many true sentences of the form '*x* is a sentence of the form 'p or not

[35] Of course, on this proposal we don't, strictly speaking, get what we wanted. According to Quine, what we wanted was to affirm an infinite lot of sentences, what we get is a commitment to the sentences we wanted to affirm.

p'', one for each of the infinitely many sentences of the form 'p or not p'. How do we manage to affirm *this* infinite lot of sentences?

So far I have concentrated on the more general claims, (*a*) through (*c*), that seem to stand behind CL-1. One might however think that I should have paid closer attention to CL-1 itself. The general closure principles, especially (*c*) and the general principle that resulted from putting (*a*) through (*c*) together, are indeed not to be accepted, so the suggestion, but CL-1 and its ilk are more specific: they have a special subject matter. Maybe that makes a difference.

What is special about the subject matter of CL-1—other than the distracting fact that it happens to talk of a universal generalization, (4), that is a law of logic? Well, (4)'s antecedent is a *form-term*. CL-1 is of course only a sample principle; its closest relatives talk of other universal generalizations whose antecedents are form-terms, the sort of generalizations issued by the original model of Quine's Ladder according to the procedure I called *the outer method* in Section 5:

For every *x*, if *x* is a sentence of the form 'p or not p', then *x* is true;
For every *x*, if *x* is a sentence of the form 'p or q', then *x* is true;
For every *x*, if *x* is a sentence of the form 'If B says 'p' then p', then *x* is true.

Here are examples of true instances of their antecedents: ''Tom is mortal or Tom is not mortal' is a sentence of the form 'p or not p''; ''Tom is mortal or snow is green' is a sentence of the form 'p or q''; ''If B says 'snow is white' then snow is white' is a sentence of the form 'If B says 'p' then p'. They are indeed somewhat special: they are truths, but not any old truths; they are truths about sentence-forms, truths about the logico-syntactic structure of sentences of our language. But does this make a difference to the issue at hand? Consider an argument from one of the generalizations to one particular item on a list à la (3)—but let us take the second generalization instead of the first to avoid distraction from irrelevant side issues:

(7) For every *x*, if *x* is a sentence of the form 'p or q', then *x* is true.
(8) 'Tom is mortal or snow is white' is a sentence of the form 'p or q'.
(9) 'Tom is mortal or snow is white' is true.

There has been a tendency in the (relatively) recent history of logic to talk of sentences such as (8), truths from the theory of the syntax of a language, as if they were logical truths: almost-logical truths.[36] If they were logical truths, one could say simply that (9) is a *logical consequence* of (7); by the principle that, if C is a logical consequence

[36] Tarski said (roughly) that a definition of 'true' is an adequate definition of truth (for a formalized language) iff it has the instances of his biconditionals as *consequences* (1935: 187-8). It turns out that these instances are not *logical* consequences of the definition he proposes; they are, at best, logical consequences of the conjunction of his definition with (logical consequences of) various principles, referred to as "the specific axioms of the metalanguage", detailing the syntactic makeup of the formalized language under consideration. (cf. 1935: 173). When he simply calls the instances of his biconditionals "consequences" of his definition, not mentioning the syntax principles, he treats these principles as if they were logical truths. I should point out that this tendency of authors such as Tarski (and Carnap) to treat truths about syntax as if they were logical truths is limited to truths about the syntax of *formalized* languages.

of A&B, then C is a logical consequence of A, if B is a logical truth. But almost-logical truths are not logical truths. There is no good reason for saying that (9) is a logical consequence of (7); it is not: it is a logical consequence of the conjunction of (7) with (8). This is not to deny that sentences such as (8) are special. One might plausibly hold, for example, that the proposition expressed by (8) is a necessary truth, so that the proposition expressed by (9) can be said to be *entailed* by the one expressed by (7), where a proposition C is entailed by a proposition A iff it is not possible that A is true and C false—the proposition expressed by (8), being necessary, drops from consideration on this understanding of entailment.[37]

But how does any of this help with CL-1, or with CL-1's sibling which says that *by* affirming (7) we affirm each of the infinitely many sentences that are like (9)? It does not, unless the formal nature of sentences like (8) is claimed to have some extravagant epistemological benefits, unless it is claimed that form-truths such as (8) are *a priori* or *analytic* in a such a manner that anyone who has the cognitive wherewithal to affirm (7) thereby *implicitly* knows or believes or affirms each one of the infinitely many sentences such as (8)—this would give us all the additional premises needed for CL-1 and its siblings for free. There is, however, not much to be said for that claim, especially considering that very many of (8)'s siblings are of such mindboggling complexity that any being remotely like us is entirely unable to even begin to grasp them.[38]

Moreover, focusing on generalizations such as the ones listed above, i.e. universal generalizations whose antecedents are form-terms, is in any case too narrow. These are the sort of generalizations issued by the original paradigm of Quine's Ladder which implements *the outer method*. As pointed out in Section 5, that paradigm is incomplete. Many universal generalizations involving the truth predicate do not take this special form. They require a variation on Quine's Ladder proceeding in accordance with *the inner method*; e.g.: 'For every *x*, if B says *x* then *x* is true'. The true antecedents of the instances of this sort of generalizations are not form-truths, not truths about the logico-syntactic structure of our language: they cannot lay claim to any such special status. Consequently, the recent suggestion to focus narrowly on CL-1 and its closest relatives, because of their special subject matter, is off the mark—we were lead to CL-1 with its reference to (4) merely because we adopted Quine's sample generalization. To handle all universal generalizations involving the truth predicate, Quine needs a more general principle, a principle saying that by affirming such generalizations we affirm each of the consequents of those of their instances whose antecedents are true; and that is the sort of closure principle that makes a highly questionable claim about affirmation.

[37] Horwich maintains that, relative to the instances of T, or rather TP, "any generalization of the form 'All instances of [the form] *S* are true' will *entail* all the instances of *S*—which are precisely the statements we need to generalize" (1998: 124; my emphasis). This seems right *if* Horwich means 'entails' as defined in the text; however, he said on the previous page, that we can "derive" the alleged "instances" from the generalization, which is wrong. Note also that form-claims about *propositions* are quite different from form-claims about sentences: there is no such thing as a syntactic metatheory for propositional forms.

[38] It would be somewhat ironic if Quine's view about how the truth predicate serves the need he has identified were to ultimately depend on the idea that the infinitely many true antecedents of the instances of generalizations such as (4) and (7) are "implicitly affirmed" by us, as soon as we affirm (4) or (7), on the grounds that all these antecedents are a priori or analytic.

7. Needing the Truth Predicate?

Quine says the utility of the truth predicate lies in the role it plays in generalizations. This raises two questions: Is the truth predicate really needed for what Quine says it is needed for? and: Does it really serve this need? The previous section was concerned with the second question. In this section I address, more briefly, the first.

According to the redundancy theory, the truth predicate is dispensable. According to Quine, it is indispensable because of the role it plays in generalizations: generalizations involving the truth predicate are *the* counterexamples that undo the redundancy theory, *the data* the redundancy theory cannot handle. Quine then develops his disquotational account of truth which, in spite of the disagreement over indispensability, retains quite a bit of the deflationary spirit of the redundancy theory.

Quine's brand of deflationism is *canonical deflationism*: it conforms with the language of first-order predicate logic, which Quine (1960) taught us to call the canonical notation. Consider a universal generalization containing the truth predicate and a partial paraphrase into canonical notation—suppressing the details of 'F' for simplicity's sake:

(10) Every sentence that is F is true.
(10.1) For every *x*, if *x* is a sentence that is F, then *x* is true.

Quine's objection to the redundancy theory is this: "In such contexts [(10)], when paraphrased to fit predicate logic [(10.1)], what stands as subject of the truth predicate is not a quotation but a variable. It is there that the truth predicate is not to be lightly dismissed" (1987: 214). That is, 'is true' cannot be removed from (10.1); the remainder is not a well-formed sentence of the canonical language; hence, 'is true' is not dispensable.

Noting Quine's reliance on paraphrase into canonical notation, one might take him to have established a conditional conclusion: If paraphrase into canonical notation gives the correct analysis of generalizations involving truth, then the redundancy theory fails—and this conditional might suggest trying an alternative paraphrasing strategy with an eye towards helping the redundancy theory to a comeback. 'If 'p' is F then 'p' is true', looks promising at first, because the last part seems reducible to 'p'—the truth predicate being dispensable when we are predicating it only of quoted sentences. But this is not a paraphrase of (10) at all; it is just a schema while (10) is a universal generalization. The next move is simply to "quantify over" the schematic sentence letter, as in (10A), and then disquote the truth predicate to reach (10B):

(10A) For every p, if 'p' is F, then 'p' is true;
(10B) For every p, if 'p' is F, then p.

This is *uncanonical deflationism*—uncanonical because (10A) and (10B) are not well-formed expressions of the canonical language. In the notation of first-order predicate logic the variables of the expression following the quantifier phrase have to be in name position; they function much like pro*nouns*. In (10A) and (10B) the variables following the quantifier phrase are in sentence position; consequently, the quantifier notation employed in these formulations is not the quantifier notation canonized in first-order predicate logic.[39]

According to uncanonical deflationists, the truth predicate is dispensable after all: it is not needed for what Quine says it is needed for. The heretics aim to uphold the dispensability thesis, in the face of Quine's objection, by *reconstruing the data* Quine said cannot be handled by the redundancy theory, so that they can be handled by the redundancy theory.

Here we have a challenge to Quine's claim that the truth predicate is needed for expressing generalizations. The ensuing debate turns on the question whether the canonical paraphrasing strategy provides the correct analysis of truth-involving generalizations (not much to discuss there for Quine: of course it does, it is the correct analysis of all generalizations); and on the question whether the uncanonical paraphrases make any sense at all and/or make sufficient sense to serve the heretics' purposes. The issue has been much discussed, though not always with direct reference to Quine.[40]

A second challenge can be made. Quine says in passage [H] we need the truth predicate if we want to affirm a lot of sentences that we can demarcate only by talking about the sentences. To do so, we select an appropriate general term, 'F', to sweep out the desired dimension of generality and affirm:

(10) Every sentence that is F is true.

But if we can do *that*, if we can thus sweep out the desired dimension of generality, why not adopt a more "pragmatic" strategy? Instead of affirming (10), so the suggestion, I could just as well affirm a *generalized explicit performative*:

(11) I hereby affirm every sentence that is F,

thereby affirming every sentence that is F. No need for the truth predicate. Such a performative will be available whenever Quine's preferred universal generalization is available, i.e. whenever we have a general term, 'F', to sweep out the desired dimension of generality. Quine does not consider this strategy, even though it seems suggested by the very formulation he uses in passage [H].

To get a better grip on this performative strategy, consider a *singular* explicit performative such as:

(12) I hereby affirm 'snow is white'.

When I affirm (12), I affirm that *I affirm* 'snow is white', so that my affirmation is automatically true: (12), when affirmed, is self-verifying. But that is not all I affirm when affirming (12): I also affirm that snow is white. Say I state in court: 'I hereby state that I have never engaged in the act of flag-burning'. Photographs are then produced showing

[39] 'For every sentence, if *it* is F, then *it* is true' is a close reading of (10.1). Trying to read (10B) along the same canonical lines produces nonsense: 'For every sentence, if '*it*' is F then *it*'.

[40] See Field 1986, section 1, and 1994. David 1994, chap. 4, and Künne 2003, chaps. 2 and 4, provide more discussion and most of the relevant references. Hill 2002 and Künne 2003, chap. 5, are two recent defenses of the heretical point of view.

me engaged in the act of flag-burning. I will not evade a charge of perjury arguing that I did not state that I was never so engaged, but that I merely stated that *I stated* that I was never so engaged.[41] So, when I affirm (12), I affirm that I affirm 'snow is white', and I thereby also affirm that snow is white. We can even put it like this: I affirm *directly* that I affirm 'snow is white', and I affirm *indirectly* that snow is white. Similarly for (11)—so the suggestion: when I affirm (11), I affirm directly that *I affirm* every sentence that is F, and I thereby indirectly affirm every sentence that is F—and I don't need the truth predicate for it.

Admittedly, (12) does not mean the same as 'Snow is white', and (11) does not mean the same as the conjunction of the sentences that are F; they both have surplus meaning, saying something about the speaker in addition. But on the face of it the point does not appear to bear on the issue at hand.[42] Quine claims that by affirming ''snow is white' is true' we affirm 'snow is white'. He does not claim that these sentences mean the same: we saw in the previous section that he does not take the two sides of Tarski's biconditionals to mean the same, and he is anyway skeptical about sameness of meaning. Our performative strategist simply points out that by affirming 'I hereby affirm 'snow is white'' I affirm 'snow is white'; she does not need to claim that the two sentences mean the same. In fact, she may share Quine's views about the truth-predicate when applied to quoted sentences, concentrating exclusively on his thesis that we need the truth predicate when we want to affirm a lot of sentences that are F. She claims I can affirm this lot of sentences, without the truth predicate, by affirming (11), never mind that in doing so I also affirm something additional.

How could Quine respond to this challenge? There is a curious difference between *some* of the performatives and Quine's generalizations, owing to the formers' surplus meaning. When I affirm 'I hereby affirm every sentence of the form 'p and q'', what I affirm directly is true, whereas what I thereby affirm indirectly, the conjunction of sentences of the form 'p and q', is false: I affirm a truth to a affirm a falsehood. Not so with 'Every sentence of the form 'p and q' is true'.[43] This generalization is true only if what we affirm indirectly by affirming it, the conjunction (of conjunctions), is true too, i.e. the generalization is false, just like the conjunction (of conjunctions). So, the performative functions differently than the truth involving generalization it aims to supplant. Does this show that we need the generalization? It does, *if* one grants Quine the following addendum to his view: When we want to affirm a batch of sentences that are F, we *also want* to affirm them by something satisfying the condition: it is true, only if the sentences that are F are true. This condition is not satisfied by the explicit performative 'I hereby affirm every sentence of the form 'p and q'', because of its curious self-verifying feature, when affirmed.

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[41] See Lycan, 1984, chap. 6, which contains more discussion and references. I have updated his example which is: 'I state that I have never been a Communist'.

[42] It would be relevant if the Quinean view did require that the two sides of Tarski's biconditionals mean the same and that universal generalizations such as (4) mean the same as the conjunctions of sentences like the ones gestured at in (2). Gupta (1993) argues that the Quineans must ultimately fall back on such meaning claims, to their disadvantage. I have tried to present the Quinean view without committing it to these meaning claims.

[43] For argument's sake, I am now granting Quine that by affirming this generalization we affirm the infinite lot of sentences of the form 'p and q'; see the previous section for criticism.

There is a second response to the performative challenge: Explicit performatives do not behave properly in embedding contexts.[44] Let us see what happens when a performative like (11) is embedded in a conditional such as: '*If* I hereby affirm every sentence that is F, then…'. The first thing to note is that, in this context, the performative is *not* affirmed. But this means that it is not true in this context: 'I hereby affirm every sentence that is F' is true when it is affirmed, and false when it is not affirmed, for it says that I *hereby affirm* every sentence that is F. Now, if unaffirmed performatives are always false, they cannot play the role played by Quine's truth-involving generalizations, because they make too many conditionals true. Compare 'If I hereby affirm every sentence of the form 'p or not p', then snow is green or grass is white' with 'If every sentence of the form 'p or not p' is true, then snow is green or grass is white'. The former is true, having a false antecedent, while the latter is false. Moreover, they make too many conditionals false, namely conditionals in which they appear as (unaffirmed) consequents. Compare 'If snow is white, then I hereby affirm some sentence of the form 'p or q'' with 'If snow is white, then some sentence of the form 'p or q' is true'. While the latter is true, the former is false, having a true antecedent and a false consequent. The explicit performatives cannot do the work of the truth-involving generalizations they aim to supplant.

This objection to the performative strategy seems telling, but it also points to a lacuna in Quine's own account, which harks back to Section 2. There we saw that Quine gets into some trouble by focusing too narrowly on occurrences of ''Snow is white' is true'' that carry assertoric force, leaving non-assertoric, embedded occurrences in the lurch. I tried to show that we can get Quine out of *this* trouble. Later we saw Quine claiming, e.g. in passage [H], that we need the truth predicate for generalizations that we need if we want to *affirm* lots of sentences that we can demarcate only through semantic ascent. Again the focus on assertoric uses, though this time on assertoric uses of *generalizations* involving 'is true'. This raises the question how Quine himself would account for non-assertoric uses of such generalizations; in particular, how he would account for embedded uses where such a generalization appears unasserted as a clause within another sentence. To my knowledge, Quine addresses this issue nowhere. Consider especially multiple embedded uses, e.g.:

(13) Every sentence of the form 'p and q' is true if and only if some sentence of the form 'p and not p' is true.

Application of Quine's Ladder to such cases is by no means straightforward—and there are of course considerably more complicated cases with multiple embedded truth-involving generalizations waiting in the wings. What would the first rung of Quine's Ladder for (13), the startup list, look like? What about the initial intention to generalize ("we are seeking generality"; see [B]): What would be its content? It is fairly clear that Quine's original model of the Ladder, the one proceeding mechanically in accordance with the outer method, cannot handle such examples (cf. Section 5): it issues only free-

[44] The performative strategy under consideration is somewhat reminiscent of Strawson's first paper entitled "Truth" (1949), but Strawson did not pay much attention to generalizations. Ever since Geach (1960), objections from embedding have become the standard objections to performative accounts in general.

standing generalizations: 'Every sentence of the form F is true.'—period. Maybe the more versatile, because less regimented (more *ad hoc*?), variant of Quine's Ladder that employs the inner method is more promising. But even there it is not obvious how to construct a Ladder leading up to a sentence such as (13). I leave this to the reader as a homework exercise.

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