

THE INDETERMINACY OF TRANSLATION

Section 1. Stimulus Meaning

Cosmically and causally, knowledge is an unimportant feature of the universe, a science which omitted to mention its occurrence might, from an impersonal point of view suffer only from a very trivial imperfection.¹

The first step in Quine's program for radical translation is to make a working hypothesis on what the native signs for assent and dissent are. To obtain candidates for these signs, the linguist may utter native sentences such as "Gavagai" under various circumstances. Hopefully, the native will often respond to these utterances with one or the other of a pair of utterances, say 'Evet' and 'Yok.' The linguist may hypothesize that these correspond to 'Yes' and 'No.' The linguist may then try repeating the natives' own utterances. If such repetitions are often met with 'Evet' then the linguist may guess that 'Evet' corresponds to 'Yes.'²

Quine proceeds next to define stimulus meaning. A stimulation x is a member of the positive (affirmative) stimulus meaning of a sentence S for speaker a at time t , if and only if a is disposed to assent to S upon the stimulation x at time t . (I will simplify this definition by ignoring moduli of stimulation.) The disposition may be

tested by first checking the native's assent or failure to assent to S upon the stimulation x' and then checking for the native's assent or failure to assent to S upon the stimulation x. If he first fails to assent to S and then assents to S, then x is in the positive stimulus meaning of the sentence S for speaker a at that time. A time here refers to a short period of time, not a moment or instant. The account of negative stimulus meaning is the same, but with dissent substituted for assent. The stimulus meaning of a sentence is the ordered pair of the positive and negative stimulus meanings of the sentence. Of course, stimulus meaning is relative to a speaker and a date as are positive and negative stimulus meaning.³

A few remarks are in order about what stimulations and dispositions are. Quine wants it to be possible for a sentence to have a stable stimulus meaning for one speaker at different times as well as for different speakers. Suppose the positive stimulus meaning of a sentence S for a speaker a at time t is defined as the class of all stimulations such that if a has the stimulation at time t then a assents to S at time t. If the conditional is material implication, then the positive stimulus meaning will not be stable. If a assents/at time t, then all of his stimulations at time t are in the positive stimulus meaning of S. If a does not assent to S at time t', then none of his stimulation at time t' are in the positive.

stimulus meaning of S. But a could have some of the same (or some like) stimulations at time t and t'. So positive stimulus meaning will vary. Also if a assents to S at time t'', then all of his stimulations at time t'' are in the positive stimulus meaning of S. But some of a's stimulations at t'' may be different (or unlike) from any stimulations a had at time t. So again positive stimulus meaning will vary. Probably because of considerations like the above, Quine uses the subjunctive conditional in the definition of stimulus meaning, which in effect is the same as using a disposition as I have done.⁴ This use of a disposition has a curious effect. Stimulations have to be universals.

For, consider again the affirmative stimulus meaning of a sentence S the class X of all those stimulations that would prompt assent to S. If the stimulations were taken as events rather than event forms, then X would have to be a class of events which largely did not and will not happen. Whenever X contained one realized or unrealized particular stimulatory event x, it would have to contain all other unrealized duplicates of x; and how many are there of these? Certainly it is hopeless nonsense to talk thus of unrealized particulars and try to assemble them into classes. Unrealized entities have to be construed as universals.⁵

The use of dispositions here may appear to conflict with Quine's view that a canonical notation for science does not have a place for subjunctive conditionals or dispositions. However, Quine can say that the use of any particular

dispositional term is permissible, it is just that the dispositional operator '--ble' cannot be applied freely in the canonical notation.⁶ In the particular cases where dispositional terms are used, they could be restated straightforwardly, if enough were known about the mechanism involved.⁷ This is a difficult subject, but I need not settle it. Quine's arguments regarding indeterminacy of translation would retain their force, regardless of whether or not science fits into a canonical notation as Quine desires.

Section 2. Limited Stimulus Meaning

'Knowledge,' in my opinion, is a much less precise concept than is generally thought, and has its roots more deeply embedded in un verbalized animal behavior than most philosophers have been willing to admit.⁸

Quine considers a number of cases in which differences in background information prevent 'Gavagai' and 'Rabbit' from having the same stimulus meaning for the native and linguist respectively. One case is the presence of rabbit-flies. The native may assent to 'Gavagai' upon a glimpse of an animal in the neighborhood of a rabbit-fly, while the linguist would not assent to 'Rabbit' upon the same stimulation.⁹ Another case is that of verbal hints.

Thus suppose that the stimulation on the heels of which the informant is asked 'Gavagai?' is a composite stimulation presenting a bystander pointing to an ill-glimpsed object and saying 'Gavagai.' This composite stimulation will probably turn out to belong to the affirmative stimulus meaning of 'Gavagai' for the informant and not the stimulus meaning of 'Rabbit' for most English speakers, on whom the force of the bystanders verbal intervention would be lost.¹⁰

Quine concludes that the linguist translates by "significant approximation" of stimulus meaning, not identity of stimulus meanings. Thus he says: the notion of stimulus meaning should not be revised.¹¹

I think Quine is justified in not abandoning the definition of stimulus meaning, but I also think he misses something. In some cases, verbal stimulation must be ignored in determining significant approximation of stimulus meaning, as in the case of 'Gavagai' and 'Rabbit.' In other cases, verbal stimulation must be considered, as in the case of 'Yes,' 'Uh huh,' and 'Quite.'¹² I think it is a good idea to define limited stimulus meaning as stimulus meaning is defined, except excluding verbal stimulations. Then it can be said that 'Gavagai' and 'Rabbit' have significant approximation as regards limited stimulus meaning, and refuse to say that they have significant approximation as regards stimulus meaning. In fact, Schick takes Quine to have defined stimulus meaning as limited stimulus meaning.¹³ Significant approximation of limited stimulus meaning can be preserved in translation,

and this is what the linguist should seek. Both stimulus meaning and limited stimulus meaning will prove useful in discussing indeterminacy of translation. Stimulus synonymy is defined as significant approximation of stimulus meaning. Limited stimulus synonymy is defined as significant approximation of limited stimulus meaning.

Section 3. Non-verbal Stimulation and Translation

The common behavior of mankind is the system of reference by means of which we interpret an unknown language.¹⁴

Consider the linguist using the following methods. He tests the native for assent or dissent to native utterances after various non-verbal stimulations. This is almost the same method as Quine examines. The difference is that sometimes Quine permits verbal stimulations. As in the next section I will consider what can be achieved by permitting verbal stimulation as well as non-verbal stimulations, no loss to the linguist is involved. The cases are merely distinguished for the sake of clarity. Because Quine seldom considers the use of verbal stimulations the results he obtains for the linguist remain, under the above method, with only a few qualifications. The results are as follows:

- 1) Observation sentences, not of second intention, can be translated.

- 2) Truth functions can be translated.
- 3) Limited stimulus-analytic sentences can be recognized
- 4) Questions of intrasubjective limited stimulus synonymy of native occasion sentences, even of non-observational kind can be settled if raised, but the sentences cannot be translated.¹⁵

Limited stimulus-analytic sentences are ones which will be assented to after any non-verbal stimulation. Two sentences have intrasubjective limited stimulus synonymy if and only if their limited stimulus meanings are the same for any given speaker. It can be seen that the results listed above can be achieved by the above method by reading chapter two of Word and Object and noting that Quine would not need to rely upon verbal stimulations to achieve them. A few observations are in order, however. Second intention sentences which are observational, e.g., 'Sentence,' cannot be translated. Sentences such as 'Non-sentence' will be limited stimulus analytic. The intrasubjective stimulus synonymy of 'Yes,' 'Uh huh,' and 'Quite' cannot be settled. Verbal stimulations have not been abandoned, however, it is useful to get clear on what can be accomplished with non-verbal stimulation.

Section 4. Verbal Stimulation and Synonymy

Augustand . . . has become synonymous with basketball excellence in recent years¹⁶

Schick thinks the indeterminacy of translation results from Quine's failure to include verbal stimulations in the stimulus meaning of a sentence.¹⁷ Whether or not this is the case, it is true that Quine does not discuss what can be established using verbal stimulations in any detail.

Quine views language as a pattern of conditioning. Some sentences are closely linked to non-verbal stimulation. A good deal can be learned about these using the method explained partially in the last section. In fact, observation sentences can be translated. All sentences are tied together in a web of association of sentences. Quine says, "any such interconnections of sentences must be finally due to the conditioning of sentence as responses to sentences as stimuli."¹⁸ The method of the last section fails to adequately explore this sentence to sentence connection. A technique of using verbal stimulations, as well as non-verbal ones, needs to be added. There is no reason that the same method as explained in the last section, just adding verbal stimulations, cannot be used. Because the entire verbal structure is merely due to verbal stimulations, as well as non-verbal ones, I see no reason why any finite extent of the interconnections could not be explored in this

manner. At any rate, a number of results can be obtained, as I will now explain.

Observation sentences of second intention can be translated. This is merely a special case of Quine's original program for translating observation sentences. Any sentence which is limited stimulus analytic but not stimulus analytic can be identified as either an eternal sentence or a sentence of second intention. (At least I cannot think of any other possibilities.) I cannot think of a way of identifying sentences of second intention in general using the above method. The only possibility I can think of relies upon the native identifying the second intention sentences for the linguist. Suppose there is a sentence in the native language which the native will assent to after verbal stimulations which consist of sentences of second intention which the linguist has been able to identify. Also suppose the native dissents to the same sentence after stimulations which consist of a sentence the linguist has been able to identify as not of second intention. The linguist may inductively infer the translation of the native sentence to be 'Sentence of second intention.' Of course there is room for error, but the linguist may revise his translation if need be. Perhaps here is a case where the bilingual can make a genuine contribution. I cannot imagine a bilingual not being able to identify sentences of second intention.

I think it is now possible to define a kind of synonymy stronger than limited stimulus synonymy. In a way it is similar to Grice and Strawson's attempt.¹⁹ It depends upon the sentences being likewise assented or dissented to under every assumption about the truth or falsity of other sentences. But this is not to be interpreted as the same thing as confirmation of the conditional sentences that Quine uses to criticize Grice and Strawson.²⁰ No formulation of an alternate conditional needs to be formulated however. The premises will be stimulations, and the linguist will check the native for assent or dissent to the conclusion just as in the case of non-verbal stimulations. Two sentences have the synonymy relation which I am suggesting if and only if a native assents or dissents to the two sentences in like manner after all stimulations, except stimulations which are sentences of second intention. So far as I can see, 'Bachelor' and 'Unmarried male adult' would satisfy this definition. Also, 'It has rained' and 'There have been dogs' would not be synonymous in this sense. The verbal stimulation 'Suppose it has never rained,' will engender dissent to 'It has rained' but not to 'There have been dogs.' If 'Suppose a bachelor were married' was used as a verbal stimulation, no uniform response could be expected. Some subjects might then assent to 'Bachelor' and dissent to 'Unmarried male adult' under certain stimulations.

The situation can be remedied however. The linguist needs only to require a community wide uniformity in response to stimulations, which cause some subjects to assent and dissent to sentences which otherwise satisfy the criterion of synonymy above. So supplemented, I think the above is a good candidate for true synonymy. Anyway, I will henceforth refer to it as synonymy. Ironically, it is weaker than stimulus synonymy as defined by Quine. Actually no two sentences would be stimulus synonymous due to sentences of second intention used as stimuli. The linguist will be able to determine this synonymy relation, if the native language is rich enough for him to identify second intention sentences and to suggest suppositions to the native. However, this synonymy relation will not rescue translation from indeterminacy.

A class of analytic sentences can also be defined. A sentence is analytic if it is assented to after all stimulations, except stimulations which are sentences of second intention. As in the case above the linguist must supplement this definition. He must require community-wide uniformity in responses to stimulations, which cause some subjects to dissent to a sentence which otherwise satisfies the criterion of analyticity. This definition of analyticity should approximate true analyticity as well as the definition of synonymy approximated true synonymy.

Section 5. Analytical Hypotheses

The method of analytical hypotheses is a way of catapulting oneself into the jungle language by the momentum of the home language.²¹

It is likely that the linguist can obtain the following, using the method of the last two sections.

First the items listed by Quine:

- 1) Observation sentences can be translated
- 2) Truth functions can be translated
- 3) Limited stimulus analytic sentences can be recognized
- 4) Questions of intrasubjective limited stimulus synonymy can be settled.²²

In addition the following can be achieved if the native language is rich enough.

- 5) Sentences of second intention can be identified
- 6) Synonymy between sentences can be recognized
- 7) Analytic sentences can be recognized
- 8) In fact, any finite region of the interconnection of sentences should be explorable.

The linguist passes beyond the above by formulating analytical hypotheses, as Quine calls them. "The segments heard utterances into conveniently short recurrent parts, and thus compiles a list of native 'words.'²³ Then he "hypothetically equates English words and phrases in such a way as to conform to" the previous results. The conformity should be as follows:

"The sentences derivable from the analytic hypotheses are to include those already established under 1); they are to fit the prior translations of truth functions, as of 2); they are to carry sentences that are $\langle \overline{\text{limited}} \rangle$ stimulus-analytic or $\langle \overline{\text{limited}} \rangle$ stimulus-contradictory, according to 3), into English sentences that are likewise $\langle \overline{\text{limited}} \rangle$ stimulus-analytic or $\langle \overline{\text{limited}} \rangle$ stimulus-contradictory; and they are to carry sentence pairs that are $\langle \overline{\text{limited}} \rangle$ stimulus synonymous according to 4 into English sentences that are likewise $\langle \overline{\text{limited}} \rangle$ stimulus synonymous."²⁴ The following conformities should also hold. Sentences that are of second intention according to 5) should translate into English sentences of second intention; sentence pairs which are synonymous according to 6) should translate into English sentences which are synonymous; sentences which are analytic according to 7) should translate into analytic English sentences. How translations are to conform as regards 8) is problematic. The associations reflect the natives' theory about nature. The following would be desirable however. The pattern of association of native sentences translates into a pattern of associations of English sentences which would constitute a plausible view of nature although it may be false.

Section 6. The Indeterminacy of Translation

. . . I have shown that the argument for translational indeterminacy is either meaningless or inconsistent²⁵

Quine's thesis of the indeterminacy of translation is the following:

Manuals for translating one language into another can be set up in divergent ways, all compatible with the totality of speech dispositions, yet incompatible with one another. In countless places they will diverge in giving, as their respective translations of a sentence of the one language, sentences of the other language which stand to each other in no plausible sort of equivalence however loose.²⁶

Quine considers this thesis to be a restatement of the following:

the infinite totality of sentences of any given speaker's language can be so permuted, or mapped into itself, that (a) the totality of the speaker's dispositions to verbal behavior remains invariant, and yet (b) the mapping is no mere correlation of sentences with equivalent sentences, in any plausible sense of equivalence however loose.²⁷

I believe that the following is what Quine wants to claim in the second thesis above. There are mappings of any speaker's language onto itself such that,

- 1) The limited stimulus meaning of all sentences are preserved.
- 2) The mapping satisfies the conditions required for

analytical hypotheses.

- 3) Sentences may be mapped onto sentences to which they are not synonymous.

This thesis is ably supported by Quine's example of 'rabbit,' 'rabbit stage,' and 'undetached rabbit part.' Each of these has the same limited stimulus meaning. Quine shows, in part, how mappings could be constructed, satisfying the condition required for analytical hypotheses, and mapping 'rabbit' onto 'rabbit stage' or 'undetached rabbit part.'²⁸ That such mappings could be constructed in detail is easily imaginable, so I find the claim that such mappings exist convincing. 'Rabbit,' 'rabbit stage,' and 'undetached rabbit part' are not synonymous.

Now, the first thesis stated above can be seen to follow from the second thesis, which has just been found convincing. Suppose we have a manual for translating a foreign language into English which is such that:

- 1) The limited stimulus meaning of all sentences is preserved under translation, and
- 2) The manual satisfies the conditions required for analytical hypotheses.

Then we can use any mapping, of the type said to exist in the second thesis, to create another manual for translation which is such that:

- 1) The limited stimulus meaning of all sentences is preserved under translation.

- 2) The manual satisfies the conditions required for analytical hypotheses, and
- 3) The translations obtained with the new manual are not synonymous with the translations obtained with the original manual.

This existence of alternate manuals for translation is what is assented in Quine's first thesis above. Thus the first thesis is found convincing.

The above formulation of the indeterminacy of translation escapes one of the objections often raised against the thesis of indeterminacy of translation as formulated by Quine. The objection is that there are no genuine alternate translations for sentences.²⁹ The use of synonymy, as previously explained, permits this objection to be avoided.

Section 7. Uncritical Semantics

. . . the proposition that external things are ultimately to be known only through their action on our bodies should be taken as one among various coordinate truths, in physics and elsewhere, about initially unquestioned things. It qualifies the empirical meaning of our talk of physical things, while not questioning the reference.³⁰

One of Quine's purposes in stating the indeterminacy of translation is to attack uncritical semantics, "the myth of a museum in which the exhibits are meaning, and the words are labels."³¹ Young considers Quine's argument for the indeterminacy of translation to see if Quine can demonstrate

the foolishness of uncritical semantics. He construes the indeterminacy of translation thesis to consist of three parts. They are:

- (1) "Relative to the evidence provided by the linguistically relevant behavior of speakers of a foreign language translation is indeterminate."³²
- (2) "The behavioral evidence relative to which the indeterminacy in (1) exists is all the evidence there is."³³
- (5) "As between two translations of a foreign language it makes no sense to speak of correctness and incorrectness."³⁴

(I retain Young's numbering.)

Now the question is whether or not (5) follows from (1) and (2). Young admits that the following is a consequence of (1) and (2).

- (4) as between two translations of a foreign language we can never tell which one is correct and which incorrect."³⁵

Young thinks Quine needs a principle such as,

- (6) "Where the evidence fails to determine a choice between two theories (sentences, hypotheses) it makes no sense to speak of truth or falsity, correctness or incorrectness."³⁶

Now (5) will follow from (1), (2), and (6). But (6) is inconsistent with Quine's philosophy of science. Young

thinks that Quine might be able to make a distinction between internal and external theories, and use the following:

- (7) Where the totality of the evidence fails to determine a choice between two internal theories (sentences, hypotheses) it makes no sense to speak of truth in falsity, correctness or incorrectness.³⁷

But (7) is not without difficulties and is co inconsistent with Quine's criticism of Carnap, as is pointed out by Young.

The reason for trying to establish (5) is the following. If, in general, an English sentence had the same meaning for English speakers as some foreign sentence had for foreign speakers, then it would make sense to speak of correct and incorrect translation. If (5) could be established, then it would follow that it is not true that, in general, a sentence has the same meaning for English speakers as some foreign sentence has for foreign speakers. The uncritical semantic notion of meanings would be undercut.

There is, however, a way in which (5) can be seen to follow from the indeterminacy of translation. Suppose the meaning of uncritical semantics exists. Then it is private because of the second of the theses stated in the last section. This is so if we admit that no evidence for

meaning exists beyond responses to stimulation, and that two sentences have different meaning for a given speaker if they are not synonymous. But then any given sentence may have different meanings, for different speakers of the language. Consider a manual for translating a foreign language into English. A foreign sentence is translated into an English sentence. Relative to a given foreign speaker and a given English speaker it makes sense to speak of a correct or incorrect translation. However what is a correct translation of for one pair of speakers may be an incorrect one for a different pair of speakers and vice versa. Thus it makes no sense to speak of correct and incorrect translation from one language to another, except relative to a particular pair of speakers of the languages, and (5) is established. This does not show that there are no meanings, but it is difficult to see what use can be made of meaning. There is another result which is even more troubling. The extension of a term is in the same boat, as regards privacy, as meaning is.³⁸ Objective reference is important to Quine's canonical program and his philosophy of science. Without it, his objectivist interpretation of quantification will have to go, and it would make no sense to speak of scientific theories as true or false. In this regard Quine's semantics appear to be as uncritical as those of uncritical semantics.

FOOTNOTES

- ¹ Bertrand Russell, Human Knowledge (New York: 1948), p. xi.
- ² Willard Van Orman Quine, Word and Object (MIT: 1960), p. 29.
- ³ Ibid., pp. 32-33.
- ⁴ Ibid., pp. 33-34.
- ⁵ Ibid., p. 34.
- ⁶ Ibid., p. 225.
- ⁷ Ibid., p. 222.
- ⁸ Russell, p. xv.
- ⁹ Quine, Word and Object, p. 37.
- ¹⁰ Ibid.
- ¹¹ Ibid., p. 40.
- ¹² Ibid., p. 48.
- ¹³ K. Schick, "Indeterminacy of Translation," Journal of Philosophy, 69 (D72), p. 820.
- ¹⁴ Ludwig Wittgenstein, Philosophical Investigations (New York: 1971), p. 82.
- ¹⁵ Quine, Word and Object, p. 68.
- ¹⁶ The Rock Island Argus, Oct. 24, 1974.
- ¹⁷ Schick, p. 825.
- ¹⁸ Quine, Word and Object, p. 11.
- ¹⁹ Grice and Strawson, "In Defense of a Dogma," The Analytic-Synthetic Distinction, (ed.) Unset, p. 125.
- ²⁰ Quine, Word and Object, p. 64.
- ²¹ Ibid., p. 70.
- ²² Ibid., p. 68.
- ²³ . . .

²⁴Ibid.

²⁵Steven Davis, "Translational Indeterminacy and Private Worlds," Philosophical Studies, XVIII (April, 1967), p. 44.

²⁶Quine, Word and Object, p. 27.

²⁷Ibid.

²⁸Ibid., pp. 52-53; and Quine Ontological Relativity (New York: 1969), pp. 32-34.

²⁹Davis, p. 41; Schick, p. 832; and J. Young, "Rabbits," Philosophical Studies, XXIII (April, 1972), p. 180.

³⁰Quine, Word and Object, p. 4.

³¹Quine, a Ontological Relativity, p. 27.

³²Young, p. 171.

³³Ibid., p. 173.

³⁴Ibid., p. 176.

³⁵Ibid.

³⁶Ibid., p. 177.

³⁷Ibid., pp. 178-179.

³⁸Quine, Ontological Relativity, p. 35; and Young, p. 182.