

THE FRAMEWORK. Quine begins by broadly outlining the empirical framework in which his discussion is conducted. Knowledge of language, as is knowledge of the world generally, is based on stimuli. But there is possibly a part of language that cannot be couched in terms of different stimulus conditions. In other words, some parts of language can be undetermined by empirical facts. We have to see how this is possible. 23

INDETERMINACIES. Quine immediately proposes different ways of showing the required indeterminacies.

SAMENESS OF DISPOSITIONS. We can imagine two persons exactly alike in their verbal dispositions, who nevertheless are able to express different thoughts, or attached different meanings, to their respective utterances. But this seems to beg the question. The premisses of this thought experiment from the start seem to rule out different meanings. 23


PARAPHRASE AND PERMUTATION. Or we can transform (permute) sentences that refer to certain kinds of entities into sentences that do not so refer, without any change in the speaker's verbal dispositions. His example is reference to numbers, but Quine does not explain in detail how this can be done. A simple illustration would be a paraphrase. Suppose I say: 23-24

(10-1) There is a lot of evil in the world.

It seems that I claim the existence of 'evil', perhaps some abstract evil force. But you could paraphrase my utterance as:

(10-2) Many people are evil.

The reference to evil as an entity is gone. What is left is the claim of the existence of people. Are these two statements same in meaning? It seems so: every one who assents to the first one, assents to the other, everyone who dissents from the first one, dissents from the other. And *vice versa*. Yet the semantic structure of these sentences is different. One refers to an abstract entity 'evil', the other doesn't.

Remark 1 (Proxy functions). In later work Quine develops the idea of permutation as follows. Let the sentence 'Harry is tall' be true. Suppose we introduce a function that maps every object to the world minus that object. So the image of Harry under this function will be the global complement of Harry, i.e. the world excluding Harry. Properties are identified with the extensions of predicates. So let the same function map the predicate 'is tall' to each of the complements of tall objects. Then clearly 'Harry is tall', under this interpretation, will still come out true. 

A rough explanation is this. Let the terms '*a*' and '*F*' be such that '*a*' refers to *a* and '*F*' is the set $\{a, b, c\}$. Then let $f(x) = W - \{x\}$, and $f(F) = \{W - \{a\}, W - \{b\}, W - \{c\}\}$. Assume that $V(Fa) = 1$. Then $V(f(F)f(a)) = 1$.

Generally, suppose a theory *T* is committed to the truth of a sentence *S*. There is no way to say which ontology the theory is committed to, so far as the referring expressions and predicates of *S* can be uniformly reinterpreted with the aid of a proxy function preserving the truth of the sentence (*salva veritate*).

TRANSLATION. Finally, the 'same' claim can be made with the aid of a thought experiment involving translation manuals. We can set up translation manuals in such a way that two such manuals would account perfectly well for the dispositions of native speakers, yet provide incompatible translations. 24

RADICAL TRANSLATION. How can the idea of divergent translations be made more plausible? We imagine a *radical translator*, someone who composes a translation manual based on the assent and dissent of native speakers. He is unaided by the various assumptions about how the native language works. His evidence is restricted to the observations over the native's assent and dissent. 25

But how would he distinguish between assent and dissent? Again, by testing various reactions of the native to various stimuli. Nothing should be taken for granted, not even the gestures.

With this modest machinery, the radical translator can correlate the native's utterance 'Gavagai' with, e.g., 'Rabbit!' and register this fact in the manual.

STIMULUS MEANING. It is clear that what prompts the native's assent and dissent are stimulations. There can be a replica of a rabbit that would still prompt the native's utterance 'Gavagai'. Similarly, the same rabbit can produce different stimulations, and consequently, different utterances by the native.

So a sentence 'Gavagai' will be endowed with stimulus meaning. This latter concept can refer to a cluster of stimulations that prompt assent and dissent. Hence we claim that 'Gavagai' and 'Rabbit' have the same stimulus meaning.

HIERARCHY OF SENTENCES. We can think of sentences as occupying different places in the hierarchy, depending on how sensitive they are to stimulations.

Occasion sentences. These include 'It hurts', 'Gavagai', 'Red'. The speaker assents or dissents only after a prompting stimulation (a rabbit, a red object).

Standing sentences. These include 'Ankara is pretty', 'Rabbits eat grass'. The speakers assent and dissent also in the absence of prompting stimulation (for example, they say that Ankara is pretty even when queried in Istanbul).

Eternal sentences. Finally, note that Ankara may be pretty in one year and ugly in another. We can supplement sentences with a date, thus having 'Ankara is pretty on 28th March 2020': this sentence will command assent or dissent regardless of the occasion of query.

OBSERVATION SENTENCES. By analogy with 'Gavagai', consider the sentence 'Bachelor'. Assent and dissent is not correlated with prompting stimulations. The discrepancies between the reactions of different native speakers can be so great that we cannot associate the meaning of this sentence with its stimulus meaning.

SYNONYMY AND INDETERMINACY. Two expressions are synonymous if they have the same meaning. So if the meaning of sentences is identified with stimulus meaning, then two sentences are synonymous if they have the same stimulus meaning—that is, they command assent and dissent in exactly same circumstances. Synonymous terms have the same reference. Synonymous singular terms (e.g., definite descriptions) refer to the same object, synonymous predicates have the same extension, synonymous sentences have the same truth value. Thus the same objects are bachelors and unmarried men.

The reverse does not hold. The extensions of 'ξ has kidneys' and 'ξ has a heart' are the same, but the predicates are not synonymous. Coreferentiality of two expressions is a weaker claim than their synonymy. Quine now argues that the identity of stimulus meaning of two expressions does not guarantee even their coreferentiality, let alone their synonymy.

For suppose the radical translator observes the native assenting the sentence 'Gavagai' in the presence of a rabbit. This he elects to translate as 'Rabbit'. But he could equally well have translated it as 'A rabbit part', 'A momentary instantiation of rabbithood', 'A fusion of temporal parts of rabbit instantiation'. Gestures offer no succour. When I point to a rabbit, I also point to a rabbit-part etc.

SUMMARY. The argument before us can be presented as follows:

- 1) A translation manual is correct if it fits the linguistic behaviour of the speakers under observable circumstances. [Behaviourism]
- 2) For any target language and any source language, there can be at least two manuals that fit the behaviour of all speakers in both language, but are mutually incompatible.
- 3) So, for any target and source language (e.g., English and Turkish), there be at least two manuals correct and mutually incompatible.

INSCRUTABILITY OF REFERENCE. One might think that the status of meaning is different when only my mother tongue is in play. Of course, you say, I don't know what a foreign (English) speaker really means by his words. But I know what my fellow (Turkish) speakers mean.

The contrast is illusory. In the first place, permutation by proxy functions could be performed on the mother tongue just as they were on the foreign language. Secondly, in order to *interpret* my fellow speakers I should use the same kind of behavioural data as I used in translating the Turkish expressions into English. There is no reason to think I fare better in interpreting my mother tongue than I am in translating a foreign language. Equally, some other speaker may be interpreting me as speaking the proxified language, rather than the original language.

Now, however, let us talk about *me*. Cannot I know what I myself refer to by using the term 'rabbit'? Surely I can tell the difference between thinking about rabbits and rabbit parts. Hence, by using 'rabbit', I think and talk exactly about rabbits. The critic here perhaps goes along with the Quinean argument, but aims to show that its ultimate conclusion should be the rejection of behaviourism.

But this response can be challenged in two ways. We can insist that the first-person perspective is generally inadmissible. Or we can say that my self-interpretation relies on my interpretation of my own past practices. Those practices are as much subject to indeterminacy as the practices of other English speakers or Turkish speakers.

What follows is that reference to objects can only be intelligible within a background language. Without any such language, reference is 'meaningless' and 'nonsensical'. That is: If truth is preserved under different permutations instituted by proxy functions, then so are all the inferential links among the sentences. Thus no change in our theorizing about the world. The original language and the proxified language, with those truth-theoretic connections unchanged, would appear to be the same language (or the same theory). But the ontology is different. How different it is, however, I cannot understand without using some further language. The ontology of *that* language can be made sense of by using one further language.

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