Quine on the indeterminacy of translation

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1.Two dogmas of empiricism

- The aim of Quine: attack the prevailing orthodoxy among philosophers of his time - **logical empiricism**.

  - Logical: they used the logical techniques of Russell and the early Wittgenstein.

  - Empiricist: their general world-view was that of quite traditional empiricism – Hume's, in particular.

1.Two dogmas of empiricism

- The core idea of logical empiricists (verificationist conception of meaning):
  - (VM) Every meaningful statement is either
  (a) True or false in virtue of meaning alone; or
  (b) **Verifiable or falsifiable** by immediate experience.

- Quine's viewpoints:
  - For (VM), there is **NO** genuine distinction between analytic and non-analytic (synthetic) truths.
  - For (b), statements always come as **part of whole theories**, and whole theories face what he calls 'the tribunal of sense experience', not individually, but only as a 'corporate body'.

1.Two dogmas of empiricism

- The differences between Quine and the logical empiricists:

➢ The logical empiricists:

1) Individual statements are verifiable or falsifiable by immediate experience;
2) If the specifiable consequences of an individual statement are detected, then this specification of the experiential consequences give the statement's meaning.

➢ Quine:

1) What can be verified or falsified are not individual statements, but the whole theories.
2) If experience does not live up to our expectations, there's no particular individual statement to which the blame is automatically attached. We have to decide what to revise, and our choice can only be made for pragmatic reasons.
3) There is no sense or proposition for any statements.

1.Two dogmas of empiricism

- The structure of our belief system (like a field of force):
  - ➢The periphery: experience.
  - ➢The core: those we think of as theoretical commitments.
  - ➢Logic> Physics> Biology> Economics> Sociology …

- Newtonian mechanics for example
  - The periphery: position, time, mass …
  - The core: the three laws
  - Consider an experiment of the motion of a free falling body.

    $F=ma$
    $\Delta x = at^2$
  - Question: figure out what is wrong!!

1.Two dogmas of empiricism

- The strategies of revision:

  ✓ **Simplicity**: the number of putative entities\ the mathematical description.

  Example: the contradiction between classical electrodynamics and Newtonian mechanics.

  ✓ **Generality**

  Example: the difference between classical physics and relativity.

	低速	高速
宏观	经典物理	相对论
微观	量子力学	量子场论

  ✓ **Coherence**: in a system\ between systems

  ✓ **Falsifiability**

1.Two dogmas of empiricism

- Return to (VM):

  Suppose that there is a fundamental distinction between analytic and synthetic truths, therefore all logic truths are analytic.

  a) $P\wedge(Q\vee R)=(P\wedge Q)\vee(P\wedge R)$ is a logic truth.
  b) Thus, P∧(Q∨R)=(P∧Q)∨(P∧R) is analytic.
  c) If something is analytic, then some choices are fixed in advance of all possible experience when choice has to be made.
  d) Thus, P∧(Q∨R)=(P∧Q)∨(P∧R) cannot be revised in any theories.
  e) Unfortunately, P∧(Q∨R)=(P∧Q)∨(P∧R) has been revised in quantum logic (find contradiction!).
  f) Therefore, there is no such distinction between analytic and synthetic truths.

1.Two dogmas of empiricism

- The author's puzzles
  - ➢Firstly, it's not clear that Quine is right to think that the two 'dogmas' are inextricable.

Dogma 1: There is an distinction between analytic and synthetic truths;

Dogma 2: Every meaningful statement is equivalent to some logic construct upon terms which refer to immediate experience.

- ◆The author' attitude: "It looks perfectly possible to hold on to the analytic-synthetic distinction and also accept some of what Quine says about statements facing the 'tribunal of experience' as a 'corporate body', rather than individually."

1.Two dogmas of empiricism

- The author's puzzles
  - Secondly, it's not clear that it's as easy to do without the idea of analytic truths as Quine suggests.

  1) Our beliefs form a body in that there are rational interconnections between them. Therefore, if our beliefs form a body, then there are some true claims of the form 'X cannot easily be rationally abandoned without revising Y', or 'X cannot easily be rationally preserved without revising Y'. For example: X= "light is particle", and Y= "light is wave". These claims seem to be analytic if Xs and Ys are semantically inconsistent.

  2) Sometimes experience goes against our theory. It's at least not easy rationally to leave the theory unrevised in the face of experience. This looks as if it requires there to be a rational connection between the theory as a whole and experience. And this again seems to depend upon the meaning of the theory.

2. Indeterminacy and inscrutability

- The assumption involved with radical translation or interpretation:

  - (RT) Every fact about the meaning of any words in any language, which can be known at all, is available in principle to someone to whom those words are initially radically alien, who proceeds by means of the methods of radical interpretation.

- Quine's purpose: provided that (RT) is true, what is available in principle to the radical interpreter is not enough to decide between what seem, on traditional conceptions of meaning, to be different interpretations of the meaning of words.

2. Indeterminacy and inscrutability

- The level of subsentential expressions (inscrutability of reference):

  (IR) Even if we accept that the truth-values of all the whole sentences of a language are fixed, there is nothing available, even in principle, to the radical interpreter which determines the reference of subsentential expressions.

- The level of whole sentences (indeterminacy of translation):

  (IT) There is nothing available, even in principle, to the radical interpreter, which determines the truth-value of all the individual sentences of a language.

➢Notice: (IR) and (IT) are metaphysical, not epistemological!!

2. Indeterminacy and inscrutability

- The thesis: given (RT), (IT) is a thesis about what facts there are: the claim is that there is no fact of the matter about the truth-value of all the sentences of a language.

- Misunderstanding: there's no such thing as a correct translation of a French or Greek text into English, for instance!!

2. Indeterminacy and inscrutability

- The reason Quine believe the inscrutability of reference:

  ‘Gavagai’ example: A native cries out ‘Gavagai’ when a rabbit scurries past. We think he means something like ‘Lo, a rabbit!’. But he might means ‘Lo, an undetached rabbit-part!’ or ‘Lo, a temporal stage of a rabbit!’. We expect there to be more tests which will rule out some of the alternatives. However, the radical interpreter’s evidence always comes at the level of whole sentences … The reference of subsentential expressions, including individual words, is nothing more than a theoretical construction designed to yield appropriate interpretations for whole sentences.

2. Indeterminacy and inscrutability

- Davidson' view: what the radical interpreter is trying to do is provide what she calls a 'theory of meaning' for the foreign language she's interpreting:

  - State the truth-conditions;
  - Discern structure and assign reference;
  - Check out the truth value after assigning reference in order to generate acceptable statements of the truth–conditions for whole sentences.

2. Indeterminacy and inscrutability

- Suppose that we begin with an assignment of reference which works for all the sentences we have encountered. And Our theory of meaning for the foreign language which we are interpreting contains, let us suppose, the following two clauses:

  (Refa) The thing referred to by ‘a’=Jane;

  (TF) The predicate ‘x is F’ is true of something if and only if that thing is witty.

  The truth-condition of the sentence ‘a is F’:

  (T1) ‘a is F’ is true if and only if Jane is witty.

- Now suppose that everything in the universe has a shadow:

  (Refas) The thing referred to by ‘a’=Jane’s shadow;

  (Tfs) The predicate ‘x is F’ is true of something if and only if that thing is the shadow of a witty thing.

  The truth-condition of the sentence ‘a is F’:

  (T1s) ‘a is F’ is true if and only if Jane’s shadow is the shadow of a witty thing.

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from below:
  - Motivation: two alternative assignments of reference to subsentential expressions made no difference to the truth-value of a certain range of sentences, but outside the range, the truth-value will be different.
  - The distinction between observation sentences and the others.

  - 1) The translation of observation sentences is particularly secure, since they are naturally translated by a sentence in the translator's own language which reports or describes the relevant state of affairs.
  - 2) The translation of other sentences is less simple, according to Quine: speakers may not always agree, and supplementary information may make a difference to their tendency to assent or dissent; nor do the observable circumstances at the time of utterance seem to be so crucial.

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from below:
  - Consider the word “Gavagai”, let’s suppose that the translations ‘rabbit’ and “rabbit which is the normal color when observed, but transparent when not observed” work equally well for all occurrences of the word ‘gavagai’ in observation sentences.

  - Consider the following sentence:

    All Gavagais are transparent when not observed.

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from above:

  ➢Some of the central claims of ‘Two Dogmas of Empiricism’:

  (ITa) There is no more to the truth or falsity of non-observational sentences than their tendency to be confirmed or falsified by the truth or falsity of observation sentences;

  (ITb) Non-observational sentences are only confirmed or falsified by observation in groups (theories).

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from above:

  - Given (ITb), there will be different ways of accommodating the falsification of a group of non-observational sentences by the tribunal of experience.
  - A theory can be regarded as a long conjunction of sentences (it will have the form ‘p and q and r and . . . ’). If the theory is falsified, that just means that at least one of its component sentences is false.
  - (ITa) tells us, in effect, that there can be no other indication that one particular sentence must be to blame.
  - Moreover, even pragmatic considerations may not always urge us in the same direction: one revision may produce something more convenient for one purpose, another for another.

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from above:

  - If we hold (ITa) and (ITb), then there can be two translation manuals which assign different truth-values to theoretical sentences in an alien tongue but might be equally good in all observation sentences.

  - Translation manuals = theories
    - Object language (theoretical sentences): S1, S2
    - Home-language: P1,P2;
      P1′,P2′
    - The evidence: the assent and dissent of the speakers are the same.
    - However, P1 is true,P2 is false; and P1′is false, P2 is true.
    - Therefore, there is no fact of the matter about which of two theoretical sentences, S1 and S2.

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from above:

  - If we are to get to the full indeterminacy thesis, we should have the following claim:

    (ITc) If there is no fact of the matter about which of two theoretical sentences, S1 and S2, is true, then there will be no fact of the matter which of two interpretations of speakers of the language of S1 and S2 –one mapping S1 onto a true sentence and S2 onto a false one, and the other vice versa – is correct.

2. Indeterminacy and inscrutability

- Pressing the doctrine of indeterminacy from above:

  - The core assumption: scientific theories are under-determined by all possible evidence.

  - Even if we had had all possible evidence – if we had known what would have happened in every possible experiment – we would might still end up with a number of alternative theories, between which there was no reason to choose – apart from reasons of convenience.

3.Resisting Quine on indeterminacy: some simple ways

- It seems that something might be posited as the cause of something observable, without itself being observable. We can imagine two different theories, which posited different kinds of cause of something observable. We might suppose that the two theories were equally good at explaining all the observable facts, and hence that no observation could confirm one at the expense of the other. Would it follow that there was really no fact of the matter as to which, if either, was right? Surely, we might think, the cause of something observable might be a certain way, even if we could never show that it was.