

The Verification Theory and Reductionism

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The verification theory of meaning, which has been conspicuous in the literature from Peirce onward, is that the meaning of a statement is the method of empirically confirming or infirming it. An analytic statement is that limiting case which is confirmed no matter what.

This is an account of cognitive synonymy not of linguistic forms generally, but of statements. However, from the concept of synonymy of statements we could derive the concept of synonymy for other linguistic forms, by considerations some-what similar to those at the end of Section III. Assuming the notion of "word," indeed, we could explain any two forms as synonymous when the putting of the one form for an occurrence of the other in any statement (apart from occurrences within "words") yields a synonymous statement. Finally, given the concept of synonymy thus for linguistic forms generally, we could define analyticity in terms of synonymy and logical truth as in Section I. For that matter, we could define analyticity more simply in terms of just synonymy of statements together with logical truth; it is not necessary to appeal to synonymy of linguistic forms other than statements. For a statement may be described as analytic simply when it is synonymous with a logically true statement.

So, if the verification theory can be accepted as an adequate account of statement synonymy, the notion of analyticity is saved after all. However, let us reflect. Statement synonymy is said to be likeness of method of empirical confirmation or infirmation. Just what are these methods which are to be compared for likeness? What, in other words, is the nature of the relationship between a statement and the experiences which contribute to or detract from its confirmation?

The most naive view of the relationship is that it is one of direct report. This is radical reduction. Every meaningful statement is held to be translatable into a statement (true or false) about immediate experience. Radical reductionism, in one form or another, well antedates the verification theory of meaning explicitly so-called. Thus Locke and Hume held that every idea must either originate directly in sense experience or else be compounded of ideas thus originating ... More reasonably, and without yet exceeding the limits of what I have called radical reductionism, we may take full statements as our significant units - thus demanding that our statements as wholes be translatable into sense-datum language, but not that they be translatable term by term.

Radical reductionism, conceived now with statements as units, sets itself the task of specifying a sense-datum language and showing how to translate the rest of significant discourse, statement by statement, into it. Carnap embarked on this project in the *Aufbau*.

The language which Carnap adopted as his starting point was not a sense-datum language in the narrowest conceivable sense, for it included also the notations of logic, up through higher set theory. In effect it included the whole language of pure mathematics. The ontology implicit in it (i.e., the range of values of its variables) embraced not only sensory events but classes, classes of classes, and so on. ...

He explained spatio-temporal point-instants as quadruples of real numbers and envisaged assignment of sense qualities to point-instants according to certain canons. Roughly summarised, the

plan was that qualities should be assigned to point-instants in such a way as to achieve the laziest world compatible with our experience. The principle of least action was to be our guide in constructing a world from experience.

Carnap did not seem to recognise, however, that his treatment of physical objects fell short of reduction not merely through sketchiness, but in principle. Statements of the form Quality q is at point-instant $.r; y; z; e$ were, according to his canons, to be apportioned truth values in such a way as to maximise and minimise certain over-all features, and with growth of experience the truth values were to be progressively revised in the same spirit. I think this is a good schematisation (deliberately oversimplified, to be sure) of what science really does; but it provides no indication, not even the sketchiest, of how a statement of the form Quality q is at $x; y; z; t$ could ever be translated into Carnap's initial language of sense data and logic. The connective 'is at' remains an added undefined connective; the canons counsel us in its use but not in its elimination.

Carnap seems to have appreciated this point afterward; for in his later writings he abandoned all notion of the translatability of statements about the physical world into statements about immediate experience. Reductionism in its radical form has long since ceased to figure in Carnap's philosophy. ...

The dogma of reductionism survives in the supposition that each statement, taken in isolation from its fellows, can admit of confirmation or infirmation at all. My counter-suggestion, issuing essentially from Carnap's doctrine of the physical world in the Aufbau, is that our statements about the external world face the tribunal of sense experience not individually but only as a corporate body.

The dogma of reductionism, even in its attenuated form, is intimately connected with the other dogma: that there is a cleavage between the analytic and the synthetic. ...

The two dogmas are, indeed, at root identical. We lately reflected that in general the truth of statements does obviously depend both upon language and upon extra-linguistic fact; and we noted that this obvious circumstance carries in its train, not logically but all too naturally, a feeling that the truth of a statement is somehow analysable into a linguistic component and a factual component. ...