

Structure and Semantics of Scientific Theories: Passages from Stein Particularly Relevant to Lectures on Carnap

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Passages from [Stein \(1992\)](#) particularly relevant to the lectures on Carnap:

1. pp. 280–281, on explication, with particular regard to analyticity:

Now, Carnap's distinction between 'external' and 'internal' questions, which was introduced in his paper on ontology and is deprecated by Quine, has – if one accepts it (which means: if one agrees to use it) – an obvious application to the process of explication in general. The explicatum, as an exactly characterized concept, belongs to some formalized discourse – some 'framework'. The explicandum – if such there is – belongs ipso facto to a mode of discourse outside that framework. Therefore any question about the relation of the explicatum to the explicandum is an 'external question'; this holds, in particular, of the question whether an explication is adequate – that is, whether the explicatum does in some appropriate sense fully represent, within the framework, the function performed (let us say) 'presystematically' by the explicandum. In saying that the 'linguistic doctrine of logical truth' or the 'verifiability theory of meaning' is, if adopted, analytic, Carnap would be making a statement about the standing of a certain proposition within a formalized system – or, rather, in a sketch of a family of projected formal systems: devised, namely, to serve as a 'framework' for Carnapian linguistic theory itself (whether of 'constructed' languages or of 'natural' languages or both). That the truth of the corresponding propositions within those systems is trivial – imposes no restriction upon the world – is something consequent upon the characterization of the framework itself. Whether one should adopt linguistic, or theoretical, frameworks that are characterized in such a way as to embody those propositions as analytic is a question (as Carnap sees it) of quite a different type, and by no means trivial. Indeed, just such a non-trivial question is at issue in the controversy with Quine.

2. p. 282:

In his reply to Quine, in the Schilpp volume, he therefore "accepted [Quine's] challenge to show that an empirical criterion for intension concepts with respect to

natural languages can be given” ([Schilpp] 1963, p. 919). Observe that two questions may be distinguished here: whether such concepts are embedded in ordinary usage – so that, for instance, there might be an ‘ordinary’ notion of ‘truth based on meanings’ to serve as the explicandum for an explication; and whether such concepts can usefully be introduced as part of the technical apparatus of the theorist – as ‘terms of art’. But the answers to these questions, however interesting they may be for empirical linguistics, have no bearing whatever upon either the difference in general between Quine’s approach and Carnap’s to philosophical issues, or the issue in particular of the viability, or utility, of the distinction between the analytic and the synthetic in formalized languages. I emphasize this because I believe that Carnap, in generously accepting the challenge posed by Quine on the empirical side, has failed to make sufficiently clear the difference between the two sorts of issues, and the important fact that the standing of his notion of the analytic as it relates to his program for scientific/philosophical explication is a matter entirely independent of the question about natural languages.

3. p. 283:

Carnap’s late view distinguished between logical truth and analytic truth – the latter being a wider concept (thus, all logical truths were, for him, ‘based on meaning’; but not all truths based on meaning were truths of logic).

4. p. 285:

What I am suggesting, then, is that alternative possible ‘frameworks’ are alternative in a very serious sense. What sense? I would put it this way: that a linguistic or theoretical framework envisages a distinct set of possibilities for the world; that alternative frameworks are, in effect, constitutive of alternative notions of possibility.

5. p. 287:

I think it has not been generally understood that, in Carnap’s scheme of things, and using the terms I have quoted earlier from Gibson, semantics is fundamentally concerned with ‘ontology’, and not with ‘methodology’ or ‘epistemology’. This should have been clear from the start, in view of Carnap’s tripartite classification of linguistic theory: into syntax – concerned with linguistic entities alone; semantics – concerned with linguistic entities and their relations to what they refer to; and pragmatics – concerned with all the aspects of a language together, including in particular its conditions and modes of use. It should have been apparent that, under this classification, methodology and epistemology belong to pragmatics. But the point was obscured – and seems at first not to have been appreciated by Carnap himself – for two reasons. On the one hand, the liberalization that freed Carnap’s philosophy from its former restriction to syntax had been made possible by Tarski’s definition of truth, which showed how very general semantical notions could be characterized in a systematic way for formalized languages.

There was no corresponding central concept that seemed to serve as an exact systematic foundation for pragmatics; and Carnap thought of the latter as concerned with something like idiosyncrasies of use in ordinary languages. On the other hand, Carnap thought – and this he seems to have continued to hold to the end of his career – that the empirical interpretation of a theory could always be achieved by specifying the semantics of the empirical part of its language. In effect, the role of pragmatics in this fundamental problem of the analysis of ‘empirical content’ would be restricted to the single function of distinguishing, within the language, its ‘empirical part’. (I take it that the pragmatic character of this distinction is clear – assuming, of course, that the distinction is tenable at all: what part of the language is ‘empirical’, or what part of its vocabulary refers to the ‘observable’, is obviously a matter that depends upon something about the users of the language.) But now, with the explicit introduction of the concept of a framework, and the implication that one of the continuing tasks of philosophy will be the examination and evaluation of alternative frameworks, it has to be clear that this activity belongs to pragmatics. . . . I would sum this up by saying that what in Quine appears as the distinction between concern with ontology – in the sense in which that means whatever relates to ‘fact of the matter’ – and concern with epistemology, is represented in Carnap as the distinction between the semantics of a framework and the pragmatics of frameworks generally (where by this last expression I mean both pragmatic questions about a single framework, and questions that involve the comparative assessment of alternative frames).

6. pp. 289–290:

Now, I have remarked that Carnap seems never to have abandoned the view that the empirical content of a language – for him, in the case of scientific languages, always one that has been formally constructed – can be based upon a part of that language specially distinguished as its ‘observational’ part; and that the empirical content of the rest of the language can then be analyzed in terms of logical relations (eventually, both deductive and inductive logical relations) to that ‘observation sublanguage’. I think, to put it baldly, that this will not work; or to put it more accurately, that it does not work (for conceivably – although I doubt it – some day it will). But in my view the trouble is not the famous ‘theory-ladenness’ of observation terms. Whatever theory is required for ordinary life is generally quite under control by ordinary people, and what Carnap calls the ‘thing language’ serves very well for what we ordinarily call observation-reports; that is, there is a kind of ‘minimal-theory-ladenness’ that occasions no difficulties. I think the real problem is that we have no language at all in which there are well-defined logical relations between a theoretical part that incorporates fundamental physics and any observational part at all – no framework for physics that includes observational terms, whether theory-laden or not.

References

- Schilpp, P. (Ed.) (1963). *The Philosophy of Rudolf Carnap*, Volume 11 of *The Library of Living Philosophers*. LaSalle, IL: Open Court Press.
- Stein, H. (1992). Was Carnap entirely wrong, after all? *Synthese* 93, 275–295.