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Phil Language

Carnap, "The Elimination of Metaphysics…"

Four ways of opposing metaphysics: Say it is *false*, *uncertain*, *sterile*, or *meaningless*.

Two kinds of "pseudo-statements:" those containing a meaningless word (believed to be meaningful), or those composed of meaningful words in a "counter-syntactical" way.

Conditions on Meaning:
A meaningful word (1) must have a fixed syntax, (2) For any elementary sentence S containing the word, the following question must have an answer (4 different versions):

(i) What is S entailed by, and what does it entail? [metalogical, correct]
(ii) What is S's truth-condition? [logical, what philosophers mean by (iv)]
(iii) How is S *verified*? [epistemological]
(iv) What does S mean? [philosophical, phenomenological]

Some words are defined by others, whereby language is eventually reduced to observation sentences or "protocol" sentences (which refer to "the given").

'teavy' example: no empirical signs, so empty verbiage. If you insist it has meaning, "from this we only learn the psychological fact that he associates some kind of images and feelings with the word. The word does not acquire a meaning through such associations" (p. 64)

'toovy' example: if it's equivalent to 'quadrangular', then it's synonymous.

"S(a)" is meaningful iff:

(1) The *empirical criteria* for "a" are known.
(2) It has been stipulated from what protocol sentences "S(a)" is *deducible*.
(3) The *truth-conditions* for "S(a)" are fixed
(4) Its *method of verification* is known.

Meaningless Terms of Metaphysics:
"What is the highest principle?" *When is "x is the principle of y" true?*
"*y* arises out of *x*," "the being of *y* rests on the being of *x*," "*y* exists in virtue of *x*."

Carnap: Such terms *can* be meaningful, e.g., when about causation. (Ignore Hume's problem.) But the metaphysician means something that's not empirically observable; otherwise, the question would be one for science. Yet no other criterion of meaning is given. So 'principle' here does not have a meaning.

Heidegger quotation.
In Heidegger, 'nothing' is mistakenly used as a noun (and as a verb!), when in fact it is an incomplete negated quantifier phrase.

"the word 'nothing' seems to refer to a certain emotional constitution, possibly of a religious sort, or something or other that underlies such emotions. If such were the case,

then the mentioned logical errors…would not be committed. But the first sentence of the quotation…proves that this interpretation is not possible" (p. 71)

"a metaphysician himself here states that his questions and answers are irreconcilable with logic and the scientific way of thinking" (p. 72)

Counter-syntactical Metaphysics:
The *Cogito* "An existential statement does not have the form '*a* exists' (as in 'I am', i.e., 'I exist'), but 'there exists something of such and such a kind" (p. 74)
Also: "What follows from 'I think' is not 'I am' but 'there exists something that thinks'"

"[Heidegger] has adopted many peculiarities of the Hegelian idiom along with their logical faults (e.g., predicates which should be applied to objects of a certain sort are instead applied to predicates of these objects or to 'being'" (p. 75)

The Verificationist Manifesto
"(Meaningful) statements are divided into the following kinds"

(a) tautologies [logic and math], (b) the negation of a tautology (contradictions), (c) empirical statements. (p. 76).

The "verdict of meaninglessness" is bestowed on:

(1) synthetic *a priori* knowledge,
(2) "the kind of metaphysics which, starting from experience, wants to acquire knowledge about that which *transcends experience* by means of special *inferences*" (p. 76)
(3) all *philosophy of norms* or *philosophy of value*,…For the objective validity of a value or norm is (even on the view of the philosophers of value) not empirically verifiable nor deducible from empirical statements" (pp. 76-7)

What's left of philosophy?
"What remains is not statements, nor a theory, nor a system, but only a *method*: the method of logical analysis…it serves to eliminate meaningless words...[and] to clarify meaningful concepts and propositions, to lay logical foundations for factual science and for mathematics" (p. 77)

An Error Theory:
Q: Why do so many smart people discuss metaphysics if metaphysics is meaningless?
A: "metaphysics does indeed have a content; only it is not theoretical content…They serve for the *expression of the general attitude of a person towards life*" (p. 78).

"Perhaps we may regard [metaphysics] as a substitute for theology on the level of systematic, conceptual thinking. The (supposedly) transcendent sources of knowledge of theology are here replaced by natural, yet supposedly trans-empirical sources of knowledge" (p. 78-9).

"Metaphysicians are musicians without musical ability" (p. 80).

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Hempel, "Empiricist Criteria of Cognitive Significance"

"a sentence makes a cognitively significant assertion…[iff] either (1) it is analytic or contradictory—in which case it is said to have purely logical meaning…or else (2) it is capable, at least potentially, of test by experimental evidence" (p. 50)

An Adequacy Condition (AC): If *N* is meaningless by the criterion, then any truth-functional compound with *N* as a part must be meaningless.
Observation sentences (OS) A sentence which asserts/denies of a macroscopic object (or group thereof) that it has a certain observable characteristic, i.e., a characteristic which can be "directly observed" under favorable conditions.

I. Cognitively Significant Sentences *"Capable, at least potentially, of [empirical] test"*
The Verifiability Requirement: S is meaningful iff it is possible to indicate a finite set of OS $O_1, O_2, \ldots O_n$, such that if these are true, then S is necessarily true. [Problems: Analytic statements; contradictory OS.]

"Complete" Verifiability: S is meaningful iff it is not analytic and follows from some finite and consistent class of OS, though the OS need not all be true. [Problems: 'All storks are red-legged', general laws in general. Also, AC is violated since 'Not all storks are red-legged' passes. Another violation of AC: S v N is deducible from any meaningful sentence S, even if N is meaningless.]

Complete Falsifiability: S is meaningful iff ~S is not analytic and follows from finite consistent class of OS. [Similar problems as before]

Ayer's Requirement: S is meaningful if the conjunction of S with "suitable subsidiary hypotheses" entails OS which are not derivable from only the subsidiary hypotheses. [Problem: Any S can be meaningful if joined with subsidiary hypothesis "if S, then OS"]

Ayer's Modified Requirement: Restrict the subsidiary hypotheses to sentences which are either analytic or can be independently shown to be testable. [Hempel: if S entails OS with apt subsidiary hypotheses, then so will S&N, even if N is meaningless.]

II. Cognitively Significant Terms "*Capable of explication by observation terms"*
S is meaningful iff all extralogical terms have "experiential reference," where "their meanings must be capable of explication by reference to observables exclusively" (p. 53)
Hempel: This meets AC; S is meaningful iff ~S is—and if N contains a meaningless term, then any N-compound contains a meaningless term.

Definability Requirement: A cognitively significant term must be explicitly definable by means of observation terms. Observation Terms: comprised of (a) observation predicates, signifying some observable characteristic, and (b) names of macroscopic objects.
[Problem: Disposition terms, e.g. 'fragile'. The material conditional does not adequately capture "if struck, it will break." A counterfactual conditional may be better, but their logic is a "thorny problem" (p. 54). And Carnap's partial definition is not enough.]

Reducibility Requirement: Any term with empirical significance must be capable of introduction, on the basis of observation terms, through chains of reduction sentences. [Problem: 'a length of $\sqrt{2}$' vs. 'a length of $\sqrt{2}+10^{-100}$' are no different in observable terms]

Interpretation Requirement: A term with empirical significance is one which is primitive or defined within an axiomatized theory which has an empirical interpretation. [Problem: 'the experimental meaning of an expression *E*' is elliptical; it is relative to the "linguistic framework" where its use is defined, and relative to the subsidiary hypotheses available.]

Part III: Cognitively Significant Systems

"Theory formation and concept formation go hand in hand; neither can be carried on successfully in isolation from the other" (p. 57)

"cognitive significance can be attributed…only to entire theoretical systems…[with] an interpretation for it in terms of observables" (ibid.) But no "isolated sentences," i.e., sentences lacking an empirical interpretation.

System Requirement: A theoretical system is cognitive significant iff it is partially interpreted to at least such an extent that none of its primitive sentences is isolated.

[Problem]: Some isolated sentences are analytic: Suppose 'Q' occurs only in the following primitive sentence:

S1: $(x)[\text{Red}(x) \rightarrow (Qx \leftrightarrow \text{Round}(x)]$

Then S1 can be a legitimate partial definition of 'Q'. But a system T containing S1 has the same explanatory and predictive power as T minus S1. Further, suppose we add to T:

S2: $(x)[\text{Smelly}(x) \rightarrow (Qx \leftrightarrow \text{Loud}(x)]$

Then, from the analyticities S1 and S2, something synthetic follows:

O: $(x)[\neg(\text{Red}(x) \wedge \text{Round}(x) \wedge \text{Smelly}(x) \wedge \neg\text{Loud}(x)) \wedge \neg(\text{Red}(x) \wedge \neg\text{Round}(x) \wedge \text{Smelly}(x) \wedge \text{Loud}(x)]$

I.e., Any red, round, and smelly *x* is loud—and any red, smelly, and loud *x* is round.

Hence, "a large class of sentences may be viewed, apparently with equal right, as analytic in given context, or as isolated, or nonsignificant, in respect to it" (p. 58).

[Problem 2]: S1 might be analytic or isolated in equivalent systems, meaning that one system will be cognitively significant, while the other isn't.

System Equivalence Requirement: A theoretical system is cognitively significant iff it is partially interpreted so that no equivalent system has an isolated sentence. [Problem: T plus O, minus S1 and S2, is equivalent to T plus S1 and S2. Yet since the latter is not cognitively significant by this requirement, the former wouldn't be either!]

IV. Conclusion. <u>*Cognitive Significance Comes in Degrees*</u>

A system is cognitively significant *to the degree that* it is (a) clear/precise, (b) powerful (explanation/prediction), (c) simple, (d) well-confirmed.