DISCUSSION

MEANING AND NECESSITY[1]

PROFESSOR CARNAP in his new book proffers a method for analysing and describing the meanings of expressions and, more briefly, discusses the theory of logical modalities, the concepts, that is, of logical necessity and possibility. His meaning-analysis is in the main intended as an improvement upon certain doctrines and practices of Frege. His account of the modal concepts of logic is in the main intended as an improvement upon certain doctrines of C. I. Lewis. Views of Quine, Russell, Tarski, Church and others are also discussed.

Students of Carnap's other writings will notice with interest that he has now swung still further from the extreme nominalism of his earlier years. Inverted commas are no longer his panacea, and he now makes alarming requisitions upon philosophy's stock of extra-linguistic entities. Indeed, he seems to need at least as many as Meinong needed, and for almost the same bad reasons. A more reassuring trend is his growing willingness to present his views in quite generous rations of English prose. He still likes to construct artificial "languages" (which are not languages but codes), and he still interlards his formulae with unhandy because, for English speakers, unsayable Gothic letters. But the expository importance of these encoded formulae seems to be dwindling. Indeed I cannot satisfy myself that they have more than a ritual-value. They do not function as a sieve against vagueness, ambiguity or sheer confusion, and they are not used for the abbreviation or formalization of proofs. Calculi without calculations seem to be gratuitous algebra. Nor, where explicitness is the desideratum, is shorthand a good substitute.

The only comment that I shall make upon his account of modal concepts is that he says nothing about most of our ordinary ways of using words like "may," "must," "cannot," "possible" and "necessary." He discusses the "mays," "musts" and "need nots" of logic, but not those of legislation, technology, games, etiquette, ethics, grammar or pedagogy. Above all, he says nothing about laws of nature or the concepts of natural necessity, possibility or impossibility.

The bulk of the book is concerned with what Carnap calls "meaning-analysis," i.e. with the elucidation of the concept of "the meaning of an expression" or of "what the expression 'so and so' means." This elucidation diverges slightly from that of Frege. Carnap is solicitous not to seem to be accusing Frege of error; his views had led to inconveniences, from which Carnap hopes that his alternative account is exempt. I shall be less solicitous and shall argue that both Frege's and Carnap's theories are either erroneous or worse.

Frege, like Russell, had inherited (directly, perhaps, from Mill) the traditional belief that to ask What does the expression "E" mean? is to ask, To what does "E" stand in the relation in which "Fido" stands to Fido? The significance of any expression is the thing, process, person or entity of which the expression is the proper name. This, to us, grotesque theory derives partly, presumably, from the comfortable fact that proper names are visible

or audible things and are ordinarily attached in an indirect but familiar way to visible, audible and tangible things like dogs, rivers, babies, battles and constellations. This is then adopted as the model after which to describe the significance of expressions which are not proper names, and the habit is formed of treating the verb "to signify" and the phrase "to have a meaning" as analogous relation-stating expressions. "What that expression means" is then construed as the description of some extra-linguistic correlate to the expression, like the dog that answers to the name "Fido." (Similar reasoning might coax people into believing that since "he took a stick" asserts a relation between him and the stick, so "he took a walk," "a nap," "a job," "a liking," "the opportunity" or "time" asserts a relation between him and a funny entity.)

Now a very little reflection should satisfy us that the assimilation to proper names of expressions that are not proper names breaks down from the start. (Indeed the whole point of classing some expressions as proper names is to distinguish them from the others.) No one ever asks What is the meaning of "Robinson Crusoe"? much less Who is the meaning of "Robinson Crusoe"? No one ever confesses that he cannot understand or has misunderstood the name "Charles Dickens" or asks for it to be translated, defined, paraphrased or elucidated. We do not expect dictionaries to tell us who is called by what names. We do not say that the river Mississippi is so and so *ex vi termini*. A man may be described as "the person called 'Robin Hood'," but not as "the meaning of 'Robin Hood'." It would be absurd to say "the meaning of 'Robin Hood' met the meaning of 'Friar Tuck'." Indeed, to put it generally, it is always nonsense to say of any thing, process or entity "that is a meaning." Indeed, in certain contexts we are inclined not to call proper names "words" at all. We do not complain that the dictionary omits a lot of English words just because it omits the names of people, rivers, mountains and novels, and if someone boasts of knowing two dozen words of Russian and gives the names of that number of Russian towns, newspapers, films and generals, we think that he is cheating. Does "Nijni Novgorod is in Russia" contain three, four or five English words?

There are indeed some important parallels between our ways of using proper names in sentences and our ways of using some, but not many sorts of other expressions. "Who knocked?" can be answered as well by "Mr. Smith" as by "the landlord"; and in "the noise was made by Fido," "the noise was made by the neighbour's retriever" and "the noise was made by him" the proper name, the substantival phrase and the pronoun play similar grammatical rôles. But this no more shows that substantival phrases and pronouns are crypto-proper names than they show that proper names are crypto-pronouns or crypto-substantival phrases.

Two exceptions to the "Fido"-Fido principle were conceded by its devotees. (1) Frege saw that the phrases "the evening star" and "the morning star" do not have the same sense (*Sinn*), even if they happen to apply to or denote (*bedeuten*) the same planet. An astronomical ignoramus might understand the two phrases while wondering whether they are mentions of two planets or of only one. The phrase "the first American pope" does not apply to anyone, but a person who says so shows thereby that he understands the expression. This concession seems to have been thought to be only a tiresome though necessary amendment to the "Fido"-Fido principle. In fact it demolishes it altogether. For it shows that even in the case of that relatively small class of isolable expressions, other than proper names, which are suited to function as the nominatives of certain seeded subject-predicate sentences, knowing what the expressions mean does not entail having met any

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appropriate Fidos or even knowing that any such Fidos exist. The things ("entities"), if any, to which such expressions apply are not and are not parts of what the expressions mean, any more than a nail is or is part of how a hammer is used.

(2) The traditional doctrine of terms had required (confusedly enough) the analysis of proposition-expressing sentences into two, or with heart searchings, three or more "terms"; and these terms were (erroneously) supposed all to be correlated with entities in the "Fido"-Fido way. But sentences are not just lists like "Socrates, Plato, Aristotle," or even like "Socrates, mortality." For they tell truths or falsehoods, which lists do not do. A sentence must include some expressions which are not terms, i.e. "syncategorematic words" like "is," "if," "not," "and," "all," "some," "a," and so on. Such words are not meaningless, though they are not names, as all categorematic words were (erroneously) supposed to be. They are required for the construction of sentences. (Sometimes special grammatical constructions enable us to dispense with syncategorematic words.) Syncategorematic words were accordingly seen to be in a certain way auxiliary, somewhat like rivets which have no jobs unless there are girders to be riveted. I have not finished saying anything if I merely utter the word "if" or "is." They are syntactically incomplete unless properly collocated with suitable expressions of other sorts. In contrast with them it was erroneously assumed that categorematic words are non-auxiliary or are syntactically complete without collocations with other syncategorematic or categorematic expressions, as though I have finished saying something when I say "Fido," "he," "the first American pope" or "jocular." Russell's doctrine of incomplete symbols was a half-fledged attempt to re-allocate certain expressions from the categorematic to the syncategorematic family. It was half-fledged because it still assumed that there were or ought to be some syntactically complete categorematic expressions, some "logically proper names" which would brook being said *sans phrase*. To call an expression "incomplete" was erroneously supposed to be saying that it did not function like a name, as if the standard of completeness were set by names and not by sentences; in fact it is saying that it is only a fragment of a range of possible sentences. So ordinary proper names are (save perhaps in some of their vocative uses) as incomplete as any other sentence-fragments.

Frege had, in consistency, to apply his modified "Fido"-Fido principle to expressions of all sorts, save those which are patently syncategorematic. So he had to say, for example, that a full indicative sentence both names an entity and has a sense (*Sinn*). Its sense is what is sometimes called a "proposition"; its nominee is a queer contraption which he calls a "truth-value." To use Mill's language (from which, perhaps, Frege's *Bedeutung* and *Sinn* were adapted), an indicative sentence denotes a truth-value and connotes a proposition (or *Gedanke*, as Frege calls it).

Carnap diverges slightly from the "Fido"-Fido principle—or rather he thinks he diverges from it. (But his divergence is not due to recognition of any of the difficulties that I have adduced above.) Instead of speaking of expressions as "names," he gives them the intimidating title "designators." (He likes to coin words ending in ". . . tor." He speaks of "descriptors" instead of "descriptions," "predicators" instead of "predicates," "functors" instead of "functions," and toys with the project of piling on the agony with "conceptor," "abstractor," "individuator," and so on. But as his two cardinal words "designator" and "predicator" are employed with, if possible, even greater ambiguity and vagueness than has traditionally attached to the words "term" and "predicate," I hope that future exercises in logical

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nomenclature will be concentrated less on the terminations than on the offices of our titles.) By a "designator" Carnap means "all those expressions to which a semantical analysis of meaning is applied," i.e. "sentences, *predicators* (i.e. predicate expressions, in a wide sense, including class expressions), functors (i.e. expressions for functions in the narrower sense, excluding propositional functions), and individual expressions; other types may be included, if desired (e.g. connectives, both extensional and modal ones). The term 'designator' is not meant to imply that these expressions are names of some entities . . . but merely that they have, so to speak, an independent meaning, at least independent to some degree" (*sic*) (p. 6). Thus everything goes to the laundry in the same washing-basket, from "(declarative) sentences,' which have "a meaning of the highest degree of independence," down to "expressions with no or little independence of meaning ('syncategorematic" in traditional terminology)" (p. 7). It is an inauspicious start, particularly since the notion of independence is not only left perfectly vague but is repeatedly spoken of as something of which there are degrees.

It is, however, clear from his practice, though not from his statement, that "designator" is generally equivalent to the word "term" of the (I had hoped, moribund) tradition.

Instead of saying, after Frege, that what a designator means is, in the first instance, that to which it stands as "Fido" stands to Fido, Carnap says that what a designator means is two things at once, namely the intension that it has and the extension that it has. The intension corresponds with Frege's sense (*Sinn*); the extension is what the designator actually applies to. Knowing the intension of a designator is understanding it; knowing its extension is knowing some facts about both the designator and the furniture of the world, namely that the designator applies to certain bits of that furniture. Carnap says a little, though not enough, about fictitious and nonsensical designators, i.e. those which do not in fact have and those which could not conceivably have extensions. He wrongly says (on p. 202) what, in effect, he rightly denies (on p. 21 and p. 30), "we must realize that every designator has both an intension and an extension."

As a senseless designator cannot and a fictitious designator does not apply to anything, it is clear that the question whether a designator does apply to anything cannot arise until after we know what, if anything, it means. The things it applies to, if any, cannot therefore, for this and other reasons, be ingredients in what it means. It should be noticed that we hardly ever know and hardly ever want to know how many things, if any, our designators apply to. We do not have inventories of stars, ripples or jokes; nor do we try to get them. But we can talk sense and follow talk about stars, ripples and jokes. So we are not missing anything we want to know about the uses of expressions if we do not know their extensions (in this sense).

But these supposedly twin notions of "having an intension" and "having an extension" need further examination. Carnap professes in his use of them to be merely clarifying a traditional usage. Yet not only have there been several discrepant usages (as Joseph and Keynes showed long ago), but the usage to which Carnap attaches himself belonged to the muddled doctrine of terms, which itself rested on the "Fido"-Fido principle which he disclaims. I think he actually confuses two nearly disconnected usages when he assimilates the sense in which truth-functions are called "extensional" while modal functions are called "intensional," to the sense in which certain nominatives are said to have extensions and intensions. The use of "extensional" and "intensional" to mean "non-modal" and "modal," derives from the debate about the ambiguity of the word "all" as meaning sometimes

"every one of the . . ." and sometimes "any . . ." No one, I think, ever couched this debate in the dictions of "denotation" and "connotation." On the other hand the debate about the extensions and intensions (i.e. the denotations and connotations) of terms or (some) substantival expressions was not a debate about the ambiguity of a certain syncategorematic word, but, supposedly, about the dual function of all ordinary categorematic words that are used or usable in the subject-place in subject-predicate sentences. The connection between the two debates was, I imagine, this. Some people said that in "all men are mortal" we are talking about or mentioning some men; others said that we need not be doing this, but only saying that there could not be any immortal men. The former were saying that the sentence was a categorical one, the latter that it was hypothetical. The former were committed to saying that the subject-term of their categorical sentence must, *qua* being a subject-term, name or denote some men. The latter were saying that the protasis of a hypothetical is not asserted for true and that the whole hypothetical could be true even though it was actually false that there existed any men, so no men were named or denoted by any part of the protasis.

The traditional doctrine erroneously took the two premises and the conclusion of any syllogism as isomorphous subject-predicate propositions and, out of deference to Barbara, took such supposedly bi-polar propositions as the standard model of all or of all respectable propositions. All such propositions are, it supposed, analysable into a subject-term coupled by a copula to a predicate-term. And what was predicate-term in one proposition could, with perhaps a little surreptitious re-wording, reappear as subject-term in another.

The subject-term was the name of what the proposition was about; the predicate term named what was affirmed or denied of that subject. Ordinarily the subject-term was supposed to name a particular (or a batch of particulars) and the predicate-term was supposed to name the attribute or property that was asserted or denied to belong to it (or them). Now though the predicate-term of a standard subject-predicate proposition could (it was wrongly thought) move over unmodified to be the subject-term of another proposition, still in the propositions in which it functions predicatively it does not do, what the subject-term does, namely mention the thing or things that the proposition is about. It is, roughly, only in their subject-roles that terms are used mentioningly. (And even this does not hold in, for example, the propositions of fiction, where the subject-terms are used only quasi-mentioningly. It does not hold in affirmative or negative existence-propositions. It does not hold in all identity-assertions, or in definitions. And it does not hold in assertions of the pattern "any S is P.")

Where the subject-terms of such sentences are used mentioningly, be they names, pronouns, demonstratives or substantival phrases, we could say, if there were any point in doing so, that the things, persons or processes mentioned were the "extension" or the "denotations" of those nominatives; and we could extend this to the things, persons or process mentioned by such other mentioning expressions as might occur in, for example, relational sentences like "Caesar was killed by his friend, Brutus." But then it would be quite clear that other fragments of sentences such as "is mortal" or "was killed by" are not mentioning expressions and have no extensions or denotations in this sense. Nor would entire sentences have extensions or denotations in this sense. It should also be clear that the persons, things or processes so mentioned are not themselves parts of the meanings of the mentioning-expressions. It would belong to the meaning of "his friend, Brutus," *that* it

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was being used to mention just this person, just as it is the present function of this hammer to knock in this nail. But the nail is not part of the present function of the hammer, and Brutus is not part of the use of an expression which mentions him. To understand the reference would be to realize that this was how it was being used. But Brutus could not be a way in which an expression was used.

On this interpretation, only a minority of expressions would have extensions; none of the standard syncategorematic expressions and none of the standard predicate-expressions would do so; no sentences or sub-sentences, and not even the nominatives of all subject-predicate sentences would do so; and even those expressions which are used mentioningly would not have the mentioned persons or things, but only the fact that they were mentioned, as parts of their meanings. In particular it is an error to suppose that predicatively used expressions like "is omniscient" or "is the friend of Caesar" can be transferred unaltered to the subject-place. For, for one thing, it is an important grammatical fact that since neither "is omniscient" nor "omniscient" can be the subject of a verb, a new nominative has to be constructed such as "the omniscient being" or "all omniscient persons"; and this is not equivalent to the predicate ". . . omniscient." And this grammatical fact reflects a difference of employment; for "the omniscient being" and "all omniscient beings" are ordinarily used in the mentioning way, which was not how the predicate had been used. It is a corresponding error to suppose, as Carnap seems to do, that a "predicator" is being mentioningly used in another way, namely as mentioning a property, e.g. a quality, a state, a relation or a natural kind. The predicate in "Socrates is mortal" does not mention the property of mortality—we use the noun "mortality" for that purpose. Adjectives and verbs do not do the same jobs as the abstract nouns that are commonly formed out of them and we have to know how to use adjectives, verbs, etc., for their own jobs, before we can learn to use the corresponding abstract nouns for their quite different jobs. Only the sophisticated mention or talk about properties. It is not true, therefore, that predicators jointly mention properties and either the things that have them or (what is quite different) the class of things that have them. The truth is that they do not do either of these things; for they are not mentioningly-used expressions.

One of Carnap's major concerns is to resolve the long-standing dispute whether predicate-expressions stand for (or denote) properties or classes. Believers in universals assert the former; believers in classes assert the latter. Carnap's eirenicon is to say that they do both at once. They have classes for their extensions and properties for their intensions. But the dispute was a spurious one. For the predicate-expressions alluded to are not mention-expressions or, more specifically, names, at all. We mention classes by such phrases as "the class of . . .," and we mention properties by such expressions as "jocularity." The adjective "jocular" is not used and could not grammatically be used to deputize for either. Nor could they deputize for it.

Carnap's way of (nominally) dispensing with the "Fido"-Fido principle does not release him from the Frege-Meinong embarrassments about sentences. The sentences which he calls "declarative" (which appears to mean what everyone else means by "indicative"), while not described as names of subsistent truths and falsehoods, are none the less described as having such entities for their intensions. For their extensions they have some mysteries called "truth-values." For sentences, having been classed as a species of "designator," have to possess their significance in the ways prescribed generally for designators. And a designator, we are told in another connection (p. 107), "is regarded as having a close semantical relation not to one but

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to two entities, namely its extension and its intension, in such a way that a sentence containing the designator may be construed as being about both the one and the other entity." So though in fact only a minority of sentence-fragments, namely mentioningly-used substantival expressions, can be said to have extensions, Carnap has to assimilate the jobs even of sentences to this special job of a species of sentence-fragments. And this is precisely parallel to the Frege-Meinong mistake of treating sentences as names. These theorists assimilated saying to calling; Carnap assimilates saying to mentioning. Yet both mentions and names (which are a species of mention) are ordinarily used only as fragments of sentences. They enable us to say certain sorts of things, but when we have uttered them by themselves we have not yet said anything.

Carnap flounders uneasily over the question, How do false sentences mean anything? as anybody must who thinks that "meaning something" is a relation-expression. He thinks that true sentences have propositions for their intensions, which propositions are cosily exemplified by facts. (I fail to see how a fact can be an example of a true proposition. Could there be several examples of the same true proposition and, if not, what does "example" mean?) But a false proposition is not thus cosily matched. So Carnap has to say that a proposition is a compound of elements each of which is severally exemplified, though the compound of them is not. A sentence is, therefore, after all, just a list. "Socrates is stupid" is equivalent to "Socrates, attribution, stupidity." Three entities are mentioned in one breath, but no one thing is said. Plato knew better than this, but then he paid some attention to saying.

Carnap generously, if somewhat airily, says that readers who are discontented with his account of the meanings of entire sentences need not let it worry them. The rest of his theory of meaning does not hinge on this particular bit of it. But surely, if his method of meaning-analysis does not apply to what a sentence means, this shows that there is something wrong with his method. And, worse than this, if the one section in which he tries to discuss saying (as distinct from naming and mentioning) is inadequate or wrong, it would be rash to feel confident in the merits of his account of the meanings of sentence-fragments. If the plot of the drama is bungled, the scenes and acts can hardly be well-constructed.

Carnap more than once says that he is not guilty of hypostatization, though he has to find not one but two entities to be the correlates of every designator. The term "entity" we are requested to take, leaving aside "the metaphysical connotations associated with it," "in the simple sense in which it is meant here as a common designation for properties, propositions and other intensions, on the one hand, and for classes, individuals and other extensions, on the other. It seems to me that there is no other suitable term in English with this very wide range" (p. 22). Shades of Meinong! Now by "hypostatization" we mean treating as names or other sorts of mentions expressions which are not names or other sorts of mentions. And just this is the tenor of the whole of Carnap's meaning-analysis. True, he abjures certain mythological dictions in which some philosophers have talked about their postulated entities. True, too, he sometimes uses hard-headed (but none the less mythological) dictions of his own, as when he says "the term 'property' is to be understood in an objective, physical sense, not in a subjective, mental sense; the same holds for terms like 'concept,' 'intension,' etc. The use of these and related terms does not involve a hypostatization" (p. 16); and "the term 'concept' . . . is not to be understood in a mental sense, that is, as referring to a process of imagining, thinking, conceiving,

or the like, but rather to something objective that is found in nature and that is expressed in language by a designation of non-sentential form" (p. 21). Whereabouts in nature are we to look for concepts? How are the properties "Jocularity" and "Primeness" to be understood in a physical sense?

My chief impression of this book is that it is an astonishing blend of technical sophistication with philosophical naïvete. Its theories belong to the age that waxed with Mill and began to wane soon after the *Principles of Mathematics*. The muddled terminology of extension and intension which belonged to the muddled and obsolete doctrine of terms is disinterred in order to help construct a two-dimensional relational theory of meaning, at a time when it ought to be notorious that relational theories of meaning will not do.

Carnap's influence on philosophers and logicians is very strong. The importance of semantic problems in philosophy and logic cannot be over-estimated. It is because I fear that the solutions of these problems may be impeded by the dissemination of his mistakes that I have reviewed so scold-ingly the treatise of a thinker whose views are beginning to be regarded as authoritative.

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