Russell's causal theory of meaning

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IT HAS BEEN argued by Kripke,[1] Putnam,[2] and Donnellan,[3] among others, that questions regarding the nature of meaning and reference can best be answered by causal theories of semantic concepts, and that epistemically based theories, such as those offered by Strawson and Russell in his earlier works, are mistaken in programme as well as in detail. Contemporary causal theorists take the central questions of reference and meaning to be questions about how reference and meaning are determined; epistemologically oriented theorists are more concerned with spelling out epistemically based conditions constitutive of reference and meaning, and concern themselves with what Jaegwon Kim calls the "direct cognitive contact" necessary to the relationship between words and the world.[4]

Interestingly, Russell repudiates the epistemically based views

[1] Saul A. Kripke, "Naming and Necessity", in *Semantics of Natural Languages*, 2nd ed., ed. Donald Davidson and Gilbert Harmon (Dordrecht and Boston: Reidel, 1972), pp. 253–356.
[2] Hilary Putnam, *Philosophical Papers*, II: *Mind, Language and Reality* (Cambridge: Cambridge University Press, 1975): esp. 196–290.
[3] Keith S. Donnellan, "Proper Names and Identifying Descriptions", in *Semantics of Natural Languages*, pp. 356–79.
[4] "Perception and Reference without Causality", *Journal of Philosophy*, 74 (1977): 604–20.

promulgated in his lectures on "The Philosophy of Logical Atomism", and develops a causally based semantic theory in *An Inquiry into Meaning and Truth*,[5] which bears some provocative similarities to, and some interesting differences from, contemporary accounts. Russell does not reject the epistemological interests in this later work, however; the fundamental motivation for his causal theory of meaning is to explain how we can non-linguistically verify "[t]hose statements about matters of fact that appear credible independently of any argument in their favour" (*Inquiry*, p. 17). Russell's fundamental thesis is that the credibility of such "basic propositions" is to be located in the fact that these statements are causally connected with certain non-verbal occurrences; his task is to provide a semantic theory which will account for the truth of such statements. As I shall argue, the semantic theory presents certain difficulties which threaten to undercut Russell's epistemological enterprise, and the more reasonable we make Russell's semantic theory, the less likely it is to do the epistemological job for which it was designed.

The semantic theory Russell devises includes accounts of word meaning, sentence meaning, denotation or reference, and truth. The theory of truth he offers is a version of the correspondence theory: statements are true or false in virtue of their relationship to the world, and this in turn is a matter of the way in which the components of the statement relate to the world. Russell's strategy is to provide accounts of meaning, denoting, and truth for rather primitive cases of language use, and then proceed to more complex cases. Since most of the interest of the theory is found at the level of this primitive, "primary" language, I will confine my discussion to it. Russell handles these primitive cases from three perspectives: psychological, epistemological, and logical. It is out of the psychologically primitive cases that the logically and epistemologically primitive cases are developed.

Russell begins with a "primary" or "object" language, made up of words which in principle can be, but in practice needn't be, learned ostensively. Such a language will contain words such as 'dog', 'cat', 'red', 'round', 'Mama', 'in' and 'up', as well as 'pentagram' and 'swastika'. It does not contain semantic terms ('true',

'false'), logical words ('and', 'not', 'some'), or intentional verbs ('believes', 'desires'). The language thus has considerable expressive power; it can in principle be used to describe any (non-mental) state of affairs, but it cannot be used to state that it has done so. It is from this language that the logical "atomic" sentences and the epistemological "basic propositions" will be constructed.

Not only can object-words be learned ostensively, they are also used ostensively. A token of any object-word is capable of being used alone, as well as occurring in longer utterances; when used alone it is regarded as a proto-typical assertive statement. It can be used this way because it is said to have its meaning "in isolation". Russell says: "In this language, every word 'denotes' or 'means' a sensible object or set of such objects, and when used alone, asserts the sensible presence of the object, or of one of the set of objects, which it denotes or means" (*Inquiry*, pp. 19–20). Such a word, when used to make an assertion, is said to *express* its meaning, and purports to *indicate* the occurrence of the meant (and denoted) object. When it indicates the occurrence of that object, the statement is said to be true; the statement is true just in case it indicates what it means (and denotes).

By examining the way in which object-words are acquired, or could be acquired, Russell thinks that he has found a way of characterizing the ostensive use of object-words, and of doing this in such a way that there is no difficulty in determining which feature in the environment is being demonstrated. Object-language words acquire their meaning for an individual by means of a complicated network of causal relations linking noticed non-verbal occurrences with phonetically similar sounds. Eventually, the responses appropriate to the experienced objects are transferred to tokens of words; and the heard word in turn produces expectations of the object. At one point Russell says that the meaning of an object-word "is defined by the situations that cause it to be used and the effects that result from hearing it" (*Inquiry*, p. 189). In a particular case, the meaning of a token of an object-word is a matter of, in some unspecified sense, being aware of this causal relationship; it is this awareness that is supposed to account for at least part of the intentional nature of language use.

The use of a single object-word is thus a matter of using that

[5] (London: George Allen and Unwin, 1940).

word ostensively, to demonstrate some object or the occurrence of some object. Demonstrating the object requires that there be an established causal connection between that sort of object and that sort of utterance which holds generally for members of the language community, and that this causal connection be operative in this particular case. Such an utterance will be true just in case the prototypical sentence uttered by the speaker means (that is, is caused by) whatever is noticed by him. If I say 'dog', I mean by this utterance that a dog is present, I denote a dog; my utterance is true when there is a dog present. The presence of some dog causes my utterance of 'dog' and I am, in some unspecified sense, aware of this connection. While not all uses of object-words are ostensive uses, they are all related to this ostensive use. The non-demonstrative use of an object-word, such as that of 'dog' in 'I was bitten by a dog yesterday' is only in part caused by the primitive association between present verbal and non-verbal stimulations to the speaker. But the central core of meaning, and denotation, of 'dog' remains those objects which, in an ostensive situation, *would* cause that utterance.

Multi-word utterances introduce certain complications, for they introduce the contribution that word order makes to the meaning of an utterance, and also to the truth conditions of that utterance. Both word order and the meanings of the word tokens will contribute to the meaning of the string of word tokens. The causal chain associated with 'dog in kennel' will be different from that associated simply with 'dog' or 'in' or 'kennel', but it will be related to all of these. In this case, Russell would say, an utterance of 'dog in kennel' means (is caused by) the noticed occurrence of a pair of objects, related in a certain way; each of the tokens may be said to mean (and denote) the occurrence of a certain object; and the whole string is true just in case there is a dog in a kennel, that is, just in case the utterance indicates what it means.

While the syntax of the object-language is rather like that of pidgin English, an examination of object-word use from a logical point of view shows that the syntactic form of sentence-sized utterances is that of the atomic sentence: it is a predicate or relational expression conjoined to the requisite number of names needed to fill these expressions. Since the object-language contains no logical words, no non-atomic sentences can be formulated in the object language.

From this logical standpoint, *naming* is the fundamental semantic relationship. A name, for Russell, is a word which "names something of which there are not a plurality of instances, and names it by a convention *ad hoc*, not by a description composed of words with previously assigned meanings" (*Inquiry*, p. 32). Since names are expressions which name things "in isolation", and the meaning of a name is what it denotes, object-words (or at least those object-words which lack a dictionary definition) can be names. The use of an object-word as a name will be the ostensive use of a word to demonstrate some thing in the vicinity of the speaker. The meaning of a name, that is, what it denotes, is again the cause of the utterance of that name. There is a causal connection between the occurrence of the named object and the production of a token of that name, and, while the convention connecting the name with the object may be *ad hoc*, Russell rejects the view he offered in his earlier days that the name-named relationship is private.

Russell treats quality words such as 'red', 'canoid', and 'round' as names; they name qualities, and qualities are regarded as objects which recur at different locations. Ordinary proper names, like 'Tom', 'Dick', and 'Harry', are regarded as "derivative" names, and are thought to be eliminable. This is because they are said to name "wholes"; the elimination of uses of ordinary proper names will be accomplished by analyzing the named whole into a complex of named "compresent" qualities. The striking feature of these proposals is that the predicative or descriptive function of expressions has largely been taken over by names. A couple of examples may make this clearer. If 'Red is bright' is an atomic sentence, we have two names, 'red' which names redness, and 'bright' which names brightness, as well as the copula. The statement is true just in case redness and brightness are compresent. Again, if 'Tom is red' is an atomic sentence, we have two names, the "derivative" name 'Tom', and 'red', as well as the copula. Here, 'Tom' names a complex whole, 'red' names redness. The statement will be true just in case redness is part of the whole named by 'Tom'. When the whole is ultimately analyzed (either logically or physically) into its constituent qualities, we have a compresence of qualities; the original statement is true just in case

redness is one of the compresent qualities.

Apparently ostensive use of indexical expressions, or what Russell calls "egocentric particulars", is also eliminated in favour of talk of compresence of qualities; the spatial and temporal locations provided in ordinary English by the use of 'here', 'this', and so on, can instead be provided by specifications of spatial and temporal qualities which are said to be compresent with other named qualities. It is here that predicate expressions have a genuine contribution to make to the meaning and the truth of atomic sentences, for the location of qualities will be explained by means of predicates. But, since undefined predicate expressions such as 'precedes' are drawn from the object-language, the use of predicate expressions will at bottom be very closely related, if not identical, to that of object-words used demonstratively.

The semantic motivation for this position should be clear. Russell believes, reasonably enough, that the most basic semantic relationship between language and the world is ostension; less reasonably, perhaps, he believes that it is also fundamental from psychological and epistemological standpoints. Russell also believes that he has provided an explanation of ostension. As we have seen, the causal account of ostension he offers is generated from consideration of what he thinks are the psychologically primitive cases of language use; other semantic concepts, such as meaning and reference, are supposed to be explained in terms of this account as well: the existence of complex causal networks between sounds and things noticed in the environment will explain what meanings are and how they are determined, what reference is and how reference is determined, and how uniqueness of reference is obtained. From a semantic standpoint anyway, Russell has reversed his theory of descriptions: ordinary naming is no longer a matter of the speaker "having in mind" some uniquely applying description, but rather, description is essentially a kind of naming. Indexical expressions, which Russell at one time believed to be paradigm names, are now discovered to be eliminable from the object-language altogether: they are not names, since their use is governed by non-arbitrary conventions, and furthermore, their use is parasitic upon the recognized existence of a causal chain extending from some present non-linguistic occurrence to an utterance—in short, parasitic upon the use of object-words used demonstratively.

The epistemological motivation is straightforward. On Russell's view, naming does not require acquaintance with a "something" independent of knowing any characteristics of that "something": Russell has rejected his early distinction between knowledge by acquaintance and knowledge by description. He retains, however, a form of direct cognitive contact between the speaker and the environment in the form of what the speaker notices; in the most primitive cases, this is what object-words mean and denote: namely, qualities. Russell then suggests that these qualities are, epistemically, quality-experiences, or percepts, and that their locations are in perceptual space. Thus, basic propositions, which are the epistemological correlate of atomic sentences, are descriptions of present sensory experiences. The meaning of a basic proposition is the occurrence which causes it; a basic proposition is true just in case it indicates that occurrence. It is in terms of these basic propositions that all non-basic empirical propositions are ultimately to be justified.

Non-basic propositions do not express what they indicate. Since Russell holds that what a statement means or expresses is ultimately a matter of certain causal processes operating on the speaker, it is not surprising that what an utterance would indicate, if true (or, that state of affairs which would verify that utterance) will differ from what such an utterance expresses. Obviously, the meaning of (causal relations lying behind) a speaker's uttering 'The back side of Jupiter has hills' is not the fact that the back side of Jupiter has hills. If there were not this "gap" between what an empirical statement expresses and what it purports to indicate, argues Russell, there would be no room for false empirical statements. By allowing this gap, on the one hand, and by establishing that there are some statements which lack this gap, Russell believes he had found a way of grounding our empirical knowledge. The only problem that remains is that of specifying the various ways in which empirical statements are to be related to basic propositions.

Clearly, Russell has shifted the discussion. He began by discussing objects, or occurrences of objects, and the ways in which they relate to words; now he is discussing percepts or perceptual experiences and their verbal connections. The move is quite inten-

tional: Russell explicitly points out that we have to devise some new words to describe perceptual experiences: a man who learned to say 'dog' in the presence of (a) dog will have to say 'canoid patch' if he wants to describe the sensory core of his perceptions. This shift from noticing occurrences to occurrent noticings is not as innocent as Russell claims. The oscillation between these two views of the non-linguistic correlates of object-words threatens to undercut Russell's epistemological enterprise.

To see this, we can begin with the well-known distinction between correctly using an expression, but misapplying it, and correctly applying it. This is a distinction of which Russell is aware, and he even briefly discusses it. Presumably, this is a distinction which can be drawn in causal terms. Since correct use is an essentially social concept we can say that a speaker correctly uses an object-expression when there is a causal chain leading from certain sorts of occurrences to his utterance of that word, and that this chain is relevantly similar to those chains of other members of the language community. Relevant similarity here may be a matter of phonetic similarity on the one hand, and physical occurrences involving certain conditions on the speaker and the environment, on the other. Incorrect use arises when the word is not used in the way that others use it, that is, when there are not relevantly similar causal chains. Correct application, or truth, is also easily characterized, as we have seen. But incorrect application, or falsehood, is very hard to state in causal terms. We might be tempted to say that incorrectly applying a correctly used word is a matter of the causal chain somehow breaking down, but we need to be able to say where or how it has broken down. There only seems to be room for this sort of breakdown if we add another link to the chain: between the occurrence of the object which initiated the chain, and the perception of the occurrence. But then it seems we must say it is the perception of the occurrence which is causally related to the utterance of the word, not the occurrence of the (noticed) object. But if the perception is what is meant, and what is denoted, by the utterance of that object-word, and the perception, not the object, is what is indicated by an utterance of the object-word, the definition of truth for object-words used assertively must be rejected. This in fact seems to be what Russell later does, when, after a lengthy discussion of epistemic issues, he comes back to the

object-language to say that there is a distinction between what an object-word expresses and what it indicates. "If I exclaim 'fire!' I express my own state and indicate an occurrence different from my state" (*Inquiry*, p. 269).

It might seem plausible to argue that Russell's adoption of a causal theory of perception enables him to meet this problem: the perceptions we have of a dog are regularly caused by the presence of a dog, given suitable conditions of the subject and the environment. But while this may indeed be a correct description of the perceptual situation, it does not help Russell. For what Russell is trying to provide is a theory of meaning and a theory of denotation, not just a theory of belief. Even if knowing the meaning of an object-word is a matter of being aware, in the unspecified sense Russell uses, of the existence of a causal chain, it does not follow that providing the meaning of an object-word is a matter of providing the causal chain. While one's evidence for the truth of 'I see a dog' may be 'I am having visual percepts typically caused by a dog' or 'I am dog-perceptive', neither of these latter two conveys what we ordinarily consider to be the meaning of the first. Similarly, if we regard the denotation of 'dog', as whatever percept it is that causes me to utter 'dog', we do not seem to be talking about the world, but about our experiences. Adding on that the denotation of 'dog' is whatever causes me to be dog-perceptive will get denotation to something external, but then, the meaning and the denotation of object-words, even when used ostensively, will be different. And if this is the case, it is hard to see how Russell can ever identify basic propositions. If the ostensive use of object-words allows this difference between their meaning and their denotation, then it seems that this difference is something which can arise in the ostensive use of names. And if it can arise there, then it can arise in the case of basic propositions, or at least, in the case of what purport to be basic propositions. At best, we may not be able to identify these basic propositions which express what they indicate; at worst, there may not be any basic propositions. Russell's causal theory of meaning will not support the epistemic theory he wants to construct.

Russell's difficulty lies not so much in the fact that he fails to distinguish sharply between denotation and meaning, nor in the fact that he believes that he can discover some propositions about

immediate experiences which are credible independently of justification from other beliefs. Rather, we should locate the difficulty in the fact that Russell conflates the question of how people actually do apply words with the question of how people know that a word applies. In general, an answer to the first sort of question will not provide an answer to the second; we may know the etiology of a particular utterance, and still not know it was correct.

Notice that one cannot salvage Russell's theory by pointing out that descriptions of one's immediately present percepts are not primitive from a psychological point of view but are rather the result of sophisticated abstraction. This is because Russell wants to attach to these propositions the semantic properties which are derived from what are presented as the psychologically primitive cases of language use. Russell's theory demands an intimate connection between the psychologically primitive cases and the epistemically primitive cases; this is revealed by the fact that much of the vocabulary needed to formulate the basic propositions is in principle available in the object-language.

In conclusion, it seems that Russell will have to give up either his experiential foundationalism or his causal theory of meaning. Contemporary work indicates that it is the former which should be rejected; that is, we should give up the project of attempting to justify all empirical claims in terms of immediate sensory experiences. This need not entail that some sort of modified foundationalism should not be pursued. We might take as our epistemological primitives the perception of objects, instead of the having of percepts, and attempt to reconstruct our claims of empirical knowledge in terms of these. What we would lose is the guaranteed truth of basic propositions; instead we would have only the likelihood of perceptual statements being true. But if these perceptual statements were formulated in object-language terms, this likelihood would approach practical certainty.

Such a move could lead to the adoption of a more inclusive semantic theory. We could retain Russell's causal intuitions, but we would be free to specify the meaning of expressions and of sentences in less egocentric ways. We could, say, following Putnam, give the meaning of non-ostensively acquired expressions in social terms: the meaning of 'hydrogen' is that set of occurrences

which cause or would cause chemists to utter 'hydrogen'. Since Russell has attempted to provide a causal account of ostension, that is, of the conditions under which a speaker comes to use language instead of merely making noises, we can recognize that he has begun to lay the foundations for a causal theory of semantic concepts.

In this respect, perhaps the most important contribution that Russell makes is his demand that a satisfactory causally-based semantic theory must provide room for the cognitive elements in ostension, and so in those uses of language which are dependent on ostension. This demand may stem from Russell's more general epistemological interests, but it is not dictated by his particular epistemological biases. It is a demand which should be taken seriously, even if it is ultimately rejected, by contemporary causally-based semantic theories.

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