Conceptual Role and Truth-Conditions

BRIAN LOAR

Conceptual role semantics, as Gilbert Harman has called it, consists in taking the meaning of a linguistic expression to be a matter of the content of thoughts or concepts it can be used to express, the content of a concept or thought consisting in its functional role in a person's psychology. On the face of it, this is quite different from a truth-conditional approach to meaning, but Harman supposes that whatever is intuitive about the latter can be explained within conceptual role semantics. Harman's various illuminating treatments of this subject ([4]-[7]) constitute one of the main reasons for the current importance of conceptual role semantics; they lucidly elaborate its various connections with other key issues in the philosophy of language. I believe that Harman's general thesis and many of his principal points are essentially correct, except for this: his account of the relation between conceptual role and truth-conditions seems to me to be underspecified, and perhaps to suggest a wrong assessment of the dependence of truth-conditions on conceptual role. In this paper I shall lay out how it seems to me that conceptual role and truth-conditions are related in the theory of meaning.

1 Use theories of meaning   Conceptual role semantics can be classified as a "use" theory of meaning. In a sense, any theory that attempts to say what it is for an individual or a population to use a language could count as such, for each sentence's meaning would then be a matter of that use or potential use of it. But virtually any theory of meaning will attempt that, and there is a somewhat narrower, more convenient, sense of "use theory". On some accounts, the ascription of truth-conditions, reference-conditions, and references (relative to the actual world or to all possible worlds) constitutes the foundational level of semantic description, whether of sentences, utterances, sentential attitudes, or thoughts.[1] But others invoke rules, practices, conditionings, verification procedures, and patterns of inferential dispositions, whose specification does not overtly involve truth-conditions, reference-conditions, or propositions.[2]

Theories which take such factors to constitute meaning are perhaps more appropriately called use theories. The distinction is not sharp; for one might imagine a theory of the latter sort which purports to reductively explicate, and thereby to explain the semantic relevance of, truth-conditions or reference. And, what is quite a different matter, on some recent views a semantic theory has two complementary levels, one a use theory and the other a theory of truth-conditions and reference. (The idea is to be found (inter alia) in: [2], [3], [8]-[10], and [13].)

Two distinctions among use theories are worth mentioning in connection with conceptual role semantics: (1) *Holistic and nonholistic use theories.* That use in which the meaning of a sentence or thought is supposed to consist may be specifiable only in terms of certain interconnections with the other sentences of a language or a person's other thoughts. By contrast, on (at least some) verificationist theories a sentence's meaning is taken to consist in relatively localized procedures for verification, assigned one by one to sentences or to small groups of sentences. (2) *Individualist and social use theories.* The conditions that constitute meanings may involve the verifications, conceptual organization, etc., of individuals (possibly generalized over); or they may have to do with social, intersubjective, verification, or more diverse language games. Intuitively, it seems best to count a theory as individualist even if it holds the meaning of x's thoughts, sentences, words to depend sometimes upon the meaning of the thoughts, sentences, words of others, as long as it is supposed always to be possible to trace the dependency back to the autonomously constituted meanings of individuals' thoughts.

Holistic theories can be either individualist or social. "Holism", as it emerged in the philosophy of science, takes a sentence's meaning to be a function of its place within a comprehensive theoretical framework. Now that could be either entirely mastered by an individual, or socially distributed across various disciplines and specialists. In the latter case, the holistic constitution of meaning would be social merely *de facto*; a single individual could, even if none does, master everything relevant. But on, say, a Wittgensteinian social use theory, what the relevant uses consist in may involve *essentially* social conditions. These may, moreover, constitute a network within which meaning is holistically constituted.

Harman's conceptual role semantics is of course individualist and holistic. Its roots lie in Quine's epistemological holism and behaviorist theory of meaning. The confirmation or verification of a sentence is, for Quine, undetachable from its potential evidential connections with virtually any other sentence. Within the positivist tradition, in which meaning and evidential responsiveness are identified, that epistemological theory naturally leads to a holistic conception of meaning. Quine of course takes the whole theory, rather than its individual sentences, as the bearer of meaning (i.e., empirical meaning) properly speaking. But it is quite in the spirit of that to take each sentence to have a kind of meaning, identified not with its own empirical meaning, but with the totality of its evidential connections to other sentences and perceptual stimuli. Quine naturalizes this conception of meaning behavioristically, via the "interanimation of sentences". "Interconnections of sentences [within the theory] must finally be due to the conditioning of

sentences as responses to sentences as stimuli" ([11], p. 11). And, of course, sentences are also conditioned to nonverbal stimuli, in a way that depends upon their conditioned connections to other sentences. Thus, we would have something like a "theory of meaning" for an individual x's sentences if we had a full account of all such sentential conditionings to other sentences and to sensory stimuli.[3]

It is really *sentential attitudes* that would be conditioned to each other, that is, the "holding-true" of sentences, certain dispositions to assent or to assertion. When such a cognitive framework is supplemented with noncognitive sentential attitudes ("wanting-true") together with the impact of combinations of cognitive and noncognitive attitudes on behavior, the result closely resembles a functional theory of meaning.

The difference lies, of course, in the nature of those states which are held to be the bearers of meaning or content—linguistic dispositions vs internal states with certain functional roles. For many crucial questions in the theory of meaning, however, this difference between Quinean and functional conceptual role theories is negligible. I mean such questions as the relation between conceptual role and truth-conditions, between understanding or conceptualization and "mastery of truth-conditions", and between verificationist and holistic theories.

2 Conceptual role and truth-conditions   There are two importantly different senses in which the conceptual roles of x's sentences do not determine their truth-conditions or references. First, on our standard system of assigning references, two thoughts with the same functional role may have different references because they occur in different contexts. Thus, a self-ascriptive thought that one is clever, or the thought that it is raining here and now, will refer to different persons or times if thought by different persons or at different times. Yet the conceptual role of "I" and "now" may be the same in the various thoughts. This context sensitivity of reference may even extend to natural kind terms, if, for example, 'water' is a rigid designator which can have the same conceptual role, but different references (i.e., H_2O and XYZ), on Earth and on Twin Earth.

The second sense in which conceptual role does not determine reference or truth-conditions is simply that nothing in the description of at least some thoughts' or sentences' conceptual roles *explains* why we assign them references or truth-conditions. It is important to maintain a third-person perspective here. Apparently a full description of the functional role, for another person x, of a predicate like "magnetic"—that is, how it functions in x's inferences, etc. (think of this as the "horizontal" dimension of description)—abstracts from there being some "vertical" relation such as satisfaction which holds between that predicate and some object y iff y is magnetic. Now this observation is compatible with allowing that the conceptual role of "magnetic" involves x's being able to *judge* that "magnetic" denotes y iff y is magnetic. But that is just a fact about x's conceptual organization and, from our point of view, does not on the face of it explain why *we* assign x's predicates satisfaction conditions.

That the two senses in which conceptual role does not determine (in general) reference and truth-conditions are distinct can be seen thus. Our

standard truth-conditional interpretation of "and" is (unlike that of "I") not context sensitive. Whether on Earth or Twin-Earth or as used by you or by me, if "and" has its characteristic conceptual role, our standard truth-functional interpretation presumably applies. But are there facts of conceptual organization alone which explain interpreting "and" in the "vertical" dimension at all? Consider some proof-theoretic game; its rules determine something like conceptual roles for its elements. I take it that nothing in such rules alone determines anything like truth-theoretic interpretations for those elements.

Harman seems to hold that facts about conceptual semantic structure, such as that a certain sentence is a conjunction or that 'Jill kicked Jack' and 'Jack kicked Jill' have a certain semantic structural relation, depend upon facts about *truth-conditional structure* ([6], Ch. 5). Truth-conditional semantics, then, would be a sort of component of conceptual role semantics, and conceptual role would directly determine (at least some aspects of) truth-conditions. But this blurs an important distinction. Let's distinguish *functional structure* from truth-conditional structure. Conjunctions all have something in common in the purely functional (horizontal) dimension, which is not a matter of truth-conditions. Consider again a proof-theoretic game. It is one thing about sentences of a certain class that they have something formally or syntactically in common, say the presence of '&'. It is quite another thing that they have a certain proof-theoretic property in common, e.g., that the rules permit, in every case, the detachment of 'S_1' from 'S_1 & S_2'. That "functional" property of those sentences is analogous to an aspect of conceptual role. But it is obvious, I think, that a description of that fact about proof-theoretic structure requires no mention of truth-conditions; the same thing holds for facts about conceptual structure. The structured conceptual properties of thoughts, which are a function of their inferential properties, must be describable independently of truth-conditional structure if the very idea of a conceptual role semantics makes sense. An isomorphism between functional and truth-conditional structure would then need explanation in the general account of the relation between conceptual role and truth conditions.

To sum up, (1) x's conceptual organization does not on its own explain, in general, our assignment to x's sentences of truth-conditions or references. (2) Within our standard scheme of truth-theoretic interpretation (however its point as a whole is to be explained) one distinguishes those elements of conceptual role which "determine" ingredients of truth conditions only in conjunction with certain aspects of context, from those whose association with aspects of truth-conditions is context-free.

There are two rather different foundational ideas about meaning or content which suggest that conceptual role is more fundamental than truth-conditions in the theory of content. The first is that the content of an individual x's thoughts or the meaning of x's sentences is based upon their roles in the explanation of x's behavior. When that is coupled with the assumption that thoughts, etc., explain behavior as causally effective states of x (and not as states of some amalgam of x and x's environment), the conceptual role theory of content quite naturally imposes itself. For what appears to be essential is how such causally effective states interact with perception and each other to influence behavior.

There is an account of the psychological explanation of behavior, however, on which truth-conditions are central. For Davidson [1], explaining others' behavior in terms of their *reasons* for acting involves making their behavior reasonable from our point of view, and this, according to Davidson, means, in part, regarding their beliefs as (by our lights) largely true. Thus ascribing truth-conditions is essential to rationalizing behavior. One possible reply by the conceptual role theorist is this: comprehensibility requires similarity in conceptual organization, and that is not a matter of truth-conditions. Consequently, a sort of "principle of charity" could be accepted as a constraint on ascribing content (via constraints on translation) without having to admit truth-conditions to account for the explanatory role of content and meaning.

The second basic idea about meaning which leads to a conceptual role semantics is simply that a theory of meaning for *L* is a theory of what one understands in knowing *L*; and to this I now turn.

3 Understanding and knowing truth-conditions   Let us for the moment suppose that we think in the language we speak. This would mean that certain of our internal states are, in some suitable sense, language-specific; their tokens are tokens of some same type as our spoken sentences. Those linguistic states are thoughts by virtue of having certain functional roles. Now, to learn to think in one's first language is to come to understand (in one sense) its sentences. So understanding (in this sense), or, in general, conceptualization, would then be a matter of certain internalized (linguistic) states having a certain functional, conceptual, organization. If a theory of meaning for *L* is a theory of what one understands in mastering *L*, then (given that *x*'s understanding *L* is a matter of *L*'s sentences having certain conceptual roles for *x*) a theory of meaning for *L* is a conceptual role semantics for *L*, and not, that is, just a correlation of the sentences of *L* with (nonlinguistic) thoughts whose contents are determined by their functional roles.

Consider now the classical idea that understanding a language consists in knowledge of its sentences' truth-conditions. The assumption that we think in the language we speak is rather obviously inconsistent with that idea, even independently of the conceptual role theory of understanding. For knowing that *s* is true iff *p* would itself then presuppose the linguistic mastery required for that knowledge, which generates a vicious regress.

Some have wished to introduce *implicit* knowledge of truth-conditions as that in which understanding consists, where such implicit knowledge would be characterized not as propositional knowledge that *s* is true iff *p*, but in some use theory of meaning (thus apparently effecting a rapprochement between use theories and the idea that (knowing) meaning is a matter of (knowing) truth-conditions). But it is not clear what the point would be. To lay out conditions which, on a certain use theory of meaning, are sufficient for understanding *s*, and then to call that "implicitly knowing *s*'s truth-conditions" seems unhelpful, a stipulation. It would, perhaps, be more than mere stipulation if the use theory in question assigned to each sentence *s* conditions of mastery which imply that *s* is true iff *p*. One might then call the resultant relation to truth-conditions "implicit knowledge". But on a conceptual role semantics, as I have pointed out, the conceptual role of a sentence does not in general determine truth-conditions for it.[4]

But there is surely something intuitive in the idea that understanding involves knowing truth-conditions. Can that be explained on the conceptual role theory? What I take to be Harman's answer (and, in effect, Quine's) is this. If I understand a predicate F or a sentence s—that is, can use them in thinking— there is a disquotational relation 'Sat' or predicate 'T' such that I can judge that Sat ('F', x) iff Fx or that Ts iff s, if I *also* understand, i.e., can use in thinking: (a) 'Sat' and 'T', and (b) the relevant metalinguistic expressions "F" and some name of s. But normal users of a language are capable of this amount of metalinguistic, reflexive, thought. Coming to understand (in the nonpropositional-knowledge sense) a class of sentences, together with mastery of (a) and (b), generates the capacity to judge that Ts iff s, for each sentence s of that class. Thus, understanding, when coupled with that further conceptual ability, in its way guarantees "explicit" knowledge of a sentence's truth-conditions. But that is quite different from understanding's *consisting* in such knowledge. Notice that one's understanding the sentence on the right hand side is crucial. Consider "'Twas brillig and the slithy toves did gyre and gimble in the wabes" is true iff twas brillig and the slithy toves did gyre and gimble in the wabes.' That form of words corresponds to no judgment that I have in my repertoire, despite my mastery of "true".

There may seem an inconsistency between this explanation of how understanding generates knowledge of truth-conditions, and the claim of the previous section that conceptual role does not determine truth-conditions. But there is no real inconsistency. On a functionalist view, the fact about "knowledge" of truth-conditions is simply this. Having a conceptual organization which generates the ability to think that snow is white, together with certain other conceptual, i.e., functional, facts, generates the ability to judge that 'snow is white' is true iff snow is white, and that is also a fact in the conceptual or functional ("horizontal") dimension. It is still a further question what, from a third-person point of view, would motivate our assignment, "vertically", of truth-conditions and references. One gets the impression that Harman (cf. [5]) takes the former to explain the latter more or less trivially. But it is quite essential to distinguish: (a) x's conceptual mastery, etc., is sufficient, given mastery of a disquotational 'true', for x's being able to assign disquotational truth-conditions to x's sentences; and (b) the conceptual roles of x's sentences determine (as judged from a third-person perspective) truth-conditions for x's sentences. In the latter case, even if there is a conventionally entrenched system for ascribing truth-conditions to the conceptual roles of others' thoughts, there is still the outstanding question whether there are objective facts about the relation of people to their environment which such a conventional assignment of truth-conditions to conceptual roles reflects. Such facts, whatever they are, are not implied by facts about conceptual organization. (They are all, you might say, about the interlinguistic "true for P" or the interpersonal "true for x", and not merely the disquotational "true".)

What has been said about understanding so far depends on the assumption that one thinks in language. Everything looks rather different without that assumption.

4 Knowing a language

Suppose those states which are by virtue of their functional roles our thoughts are not in the language we speak. Acquiring a first

language is not then learning to think in that language, and my understanding its sentences is not their having certain conceptual roles for me. Understanding, it seems, may then be knowledge of some sort, not knowledge of a theory of the language as a whole, but rather, for each sentence *s* (of those not too complex to understand), knowledge of *s*'s meaning. Given the general assumption of conceptual role semantics, understanding would then consist in knowing, for each relevant *s*, that *s* can be used to express such and such thought.

This would not mean that concepts are acquired independently of acquiring a language; the two may to a large extent develop *pari passu,* and be linked nonaccidentally. We would, however, then need a further systematic explanation of this sentence by sentence knowledge of meanings. The internalization of something with the systematic structure of the semantic theory of a language is a natural suggestion here, the Chomskyan idea of language mastery as the internalization of a system of rules. Harman has argued impressively against this [7]; but his argument depended on the assumption that learning a language is learning to think in that language, and not acquiring knowledge (couched in concepts that are not "in" that language) of its sentences' meanings. In the former case, being able to interpret the utterances of a speaker of one's language does not require any "decoding". The fact that the sentence which *x* utters itself has a certain conceptual role for me, together with a principle like "for each *s*, *s* is used by *x* to express a thought with the conceptual role *s* has for me", allegedly precludes any need for postulating mastery of a complex system of interpretative rules. But if we do not think in the language we speak or can interpret, no simple principle of the above sort apparently sums up the sentence by sentence knowledge we have of the thoughts which *x*'s sentences express.[5]

It still would not follow, of course, that knowing a language is mastering a truth-theory for that language. For if this systematic basis for understanding is is supposed to explain our knowledge, for each sentence, of what thought it expresses, and if the identity of a thought is a matter of its conceptual role, then this basis would apparently have to consist in some implicit mastery (Chomskyan "knowledge") of a systematic, generative, mapping of sentences onto conceptual roles. Whether this knowledge must also include in some way knowledge of a truth theory is a question to which I shall return.

5 Conceptual role, division of labor, and Twin-Earth   According to Harman, 'the contents of concepts and thoughts is determined by their '"functional role" in a person's psychology'; and '"functional role" includes any special role a concept may play in perception and in inference or reasoning, including practical reasoning that leads to actions'. This suggests that the content of *x*'s thoughts is a matter of *x*'s own functional organization, in which the input is perception and the output is behavior. But certain facts about content have appeared not to allow taking *x*'s conceptual organization to be sufficient to determine the contents of *x*'s thoughts. Even if I cannot distinguish elms from oaks, some of my thoughts may be about oaks and not elms and some about elms and not oaks. Harman accounts for this by taking the content of *x*'s thoughts to depend, sometimes, on the independent content of words such as "oak" and "elm", which derive their content from their connection with the thoughts of more expert persons, whose thoughts are about oaks or elms

entirely by virtue of their (the experts') individual functional organizations. So we have to interpret Harman's "conceptual role semantics" more broadly than was just suggested. The content of a concept of x's may depend on its functional role in y, from whom x inherits it.

Several points here. First, it is not clear what would make some state of x's and some state of y's count as the same concept (*oak*) if not their conceptual role. What else is there on Harman's account? But there must be something, if the meaning of "oak" is not different for x and for y. Secondly, we should at least note that, in the kind of case envisaged, x does have different conceptions of oaks and elms, for x believes that oaks are called "oaks" by the experts and elms "elms". Why not say that x's concepts differ in content by virtue of those differences in x's individual conceptual organization? That would, given a suitable theory of reference, also explain why those concepts' references are inherited from the experts. Thirdly, on Harman's account we need some criterion for saying when x's concepts get their content from their conceptual role for x and when from some other individual(s). The theory otherwise seems a collection of *ad hoc* judgments. Fourthly, we should keep in mind that for concepts which stand for imperceptible properties, like "magnetic", it is far from clear how on Harman's theory an appeal to the individual conceptual organization even of experts explains their reference. For the only relevant functional input is perception. We need a more general account of reference; inheritance of conceptual roles does not seem sufficient.

When we turn to the Twin-Earth case, a different issue arises. Two populations, on Earth and on Twin-Earth, may have virtually the same beliefs (in one sense) "about water", the concepts which "water" is used to express being functionally equivalent in the two cases. But on Earth those beliefs are as it happens about H_2O, while on Twin-Earth about XYZ. So individual conceptual organization is apparently not sufficient for determining their content. To deal with this, Harman suggests that "the content of a person's concept is determined by its functional role *in some normal context*". Now, on the face of it, this is incompatible with Harman's leading idea that content is a matter of conceptual role. Why should content be determined in part by context if conceptual role is the key semantic concept?

This is an instance of a more general phenomenon. As I earlier noted, the conceptual role of "I" and "now" may be the same for different speakers or at different times, and yet of course differ in "content" (in one sense). A fairly natural suggestion here is that conceptual role in some cases "determines" (in the sense of being conventionally associated with) not references, but certain functions from context to references. So the function associated with a natural kind concept of x's may map its context onto a natural kind which has certain causal relations to x's conceptual organization.[6] Harman says that the difference between content on Earth and on Twin-Earth "is not simply a difference in context of utterance or context of thought", "because the thought of a newly arrived Earthling on Twin-Earth would be about H_2O". But "context" has a general enough use in semantic theory to cover quite different sorts of factors, e.g., not just where a thought takes place but also its causal history.

So different conceptual roles determine different reference-functions. Then "the content of a person's concept is determined by its functional role in

some normal context" could be true in the sense that the functional role of a thought determines a reference-function, and the content (in the sense of reference) is the value of that function for that thought's relevant contextual factors.

But this leaves a puzzle when we look again at Harman's theory. What do the values of such reference functions have to do with conceptual role? They are themselves obviously not constituents of facts about conceptual roles. The natural kind H_2O is not "in the head". But if that is so, why should functions from contexts to such values be regarded as aspects of conceptual roles? Of course, given a conventional association of such reference functions with conceptual roles (one built into our semantic intuitions) it can appear that the latter determine the former. But the fact is that, unless there is a second level of semantic description and systematization, a level distinct from conceptual roles and independently motivated, simply to say that a certain aspect of content is determined by functional role plus "normal" context is *ad hoc*.

6   The independence of truth-conditions   Suppose some conventional association of truth conditions and conceptual roles is built into the meaning of 'true'; in other words, some canonical specification of the conceptual role of *s*, together with the meaning of 'true' and relevant facts about the context of an utterance (or thinking) of *s*, conjointly determine something of the form 'that utterance, etc., is true iff _____ '. This is perfectly compatible with the following: (a) conceptual role does not in general explain why we evaluate utterances, etc., in terms of "truth"-conditions, and (b) utterances' truth-conditions and references reflect facts that are quite distinct from their conceptual roles.

The general reasons for (a) I have given earlier. In other words, the general account of the conceptual roles of *x*'s thoughts, etc., does not explain why a predicate that means what "true" means is so *salient*, by comparison with other truth predicates. As for (b), what facts about the world give a point to assigning truth-conditions and references? A classic answer about reference is: certain causal relations between expressions or aspects of conceptual role and things, properties, etc. (not specified in specifying those conceptual roles). But, on its own, this is insufficient for two reasons. First, suppose we were able to specify certain relevant causal chains, via perception, memory, communication, and so on. It would still need explanation what makes them *semantically* relevant. Presumably it is their role in whatever accounts for the salience of truth-conditions in general. Secondly, a causal theory of reference does not yield a general theory of truth-conditions, for the simple reason that it says nothing about the interpretation, e.g., of the connectives, nor in general about why conditions that determine truth values are assigned. Given that references by their very nature have to be constituents of truth-conditions, one suspects that it is only in a general theory of truth-conditions that the causal theory of reference acquires a point.

A currently prominent answer about the status of truth-conditions is *reliability*: there is a certain correlation *T* of (largely external) possible states of affairs with conceptual roles such that states with those conceptual roles (which are arrived at *via* certain "reliable" procedures) tend, given the way the world is, to be reliable indicators of the obtaining of those possible states of affairs

(or approximations thereto) which are correlated with those conceptual roles by T. The important thing about this idea, as regards the relation between truth-conditions and conceptual role, is that such a correlation between functional states and external states of affairs is quite contingent and nontrivial, that is, in no way follows simply from the conceptual roles of those states. This seems to justify speaking of truth-conditions as a level of semantics distinct from conceptual roles. It would not be interesting to claim that conceptual role exhausts meaning to the *exclusion* of the facts upon which truth-conditions rest; for reference-conditions and truth-conditions seem partially definitive of meaning in its broadest sense. Given then that facts about reliability and about conceptual organization are distinct, it seems reasonable to take semantic theory and the theory of content to have two components. Naturally this leaves open the possibility that the two levels have intimate structural, explanatory, epistemological, etc., relations—that it is no accident that our concepts of meaning and content cover both, and that certain of our systematic devices for ascribing content (e.g., that-clauses) encode information from both levels.

A reliability theory of truth-conditions need not build "reliable" into the meaning of "true". "True" may be defined simply *via* that correlation T, abstractly specified, between conceptual roles and (functions from contexts to) possible states of affairs. That would explain how conceptual role (and context), together with the meaning of "true", can in a sense determine truth-conditions. Reliability then is involved in explaining the *point* of treating "true" with the reverence we give it; it is here that those further contingent facts are relevant.[7] One advantage of not defining "true" as something like "satisfies such and such truth-predicate T' under which beliefs (statements, etc.) are reliable indicators of the facts" is to accommodate the intuition that our beliefs might not have been so reliable: had things developed differently our beliefs might systematically have been not true, which simply means, relative to the correlation T we now treat as special.

Both Quine and Harman treat conceptual role and the disquotational "true" as exhausting the hard currency of semantic theory; and it might appear that the claim that there is a level of truth-conditional semantics distinct from conceptual role can be countered on that basis. For, it might be said, our interpersonal ascription of truth-conditions to x is a matter of: (a) the translation of x's language into ours on the basis of (some approximation to) equivalence of conceptual roles and (b) a truth predicate for x's sentences which is derivative from that translation and our disquotational, intralinguistic, "true".

But it is a quite contingent fact about x's beliefs that they are reliable relative to the truth-conditions ascribed to them via (a) and (b). That (b) involves a purely disquotational predicate of ours in no way diminishes that fact. Moreover, that fact depends upon an independent, direct, correlation between x's functional states and external states of affairs, and it is incidental that the correlation can be captured indirectly via (a) and (b). Naturally the availability of the indirect route needs explanation; and that presumably involves a similarity between the reliability properties of x's functional states and ours. But (a) and (b) do not explain away the facts which warrant speaking of a level of semantic theory over and above conceptual role.

Earlier I suggested that causal theories of reference get their point from

their connection with whatever constitutes truth-conditions. More specifically, I suggest that those causal relations have certain roles to play in the explanation of the reliability of the beliefs whose references they determine (cf. [8], 9.9). Now, if that is so, the referential properties of x's beliefs are clearly not an artifact of the translation of x's language into mine coupled with a disquotational, intralinguistic, satisfaction relation on my language. Those causal, referential, relations would constitute a distinct level of (semantic) fact.

What consequences are there for the connection between knowing a language and knowing truth-conditions? It has often been observed that our knowledge of a public language enables us to infer from what people say ("Voyager Two has flown by Saturn") how things are (that Voyager Two has flown by Saturn). Evidently much of the point of communication is to facilitate such inferences, and mastering a public language rather essentially requires mastering whatever properties of sentences are involved, i.e., their truth-conditions. Because truth-conditions, or functions from contexts to truth-conditions, are conventionally intimately associated in certain ways with conceptual roles, it can easily seem that knowing what conceptual roles the sentences of others express constitutes our full mastery of a system of communication. But in fact we have mastered two sorts of information: correlations between sentences and the functional states of others, and between sentences and (on the whole) nonpsychological, external, possible states of affairs. Both pieces of information are essential to our full participation in linguistic communication.

NOTES

1. This includes Frege, Russell, early Wittgenstein, Carnap ("The foundations of logic and mathematics"), Davidson, David Lewis ("Languages and language" in [7]).

2. This group of theories includes pragmatism, verificationism, the later Wittgenstein, Quine, Sellars, Dummett, and Harman.

3. It is apparently sometimes thought that Quine takes the theory of meaning to consist in extensional truth-theoretic semantics, as opposed to intensional semantics. But Quine's emphasis on extensional notions has a different source, viz. the importance of the "semantic conception" of truth to the theory of logic. Even extensional semantic "facts" are indeterminate for Quine—that is, it is indeterminate which truth-theory for a person's or population's language is the correct one. What is required for logic, however, is not 'true in the language of P' (the interlinguistic truth-predicate) but the purely disquotational 'true'. That is what is supposed to be not problematic, by contrast with intensional notions like 'analytic'. (For a critique of this claim of Quine's see [14].) But the disquotational 'true' is not supposed by Quine to yield a theory of meaning in the sense in which Chapter 1, section 3 and Chapter 2 of [11] do. Now, Quine rejects propositions as meanings for two rather different reasons. First, individuating intensions is supposed to be problematic in a way that individuating extensions is not. Secondly, it is claimed that sentences do not have meanings one by one because meaning is holistic (cf., [12], Ch. 1). The latter, of course, would cut against interpersonal extensional semantics as well as intensional semantics.

4. There is a more general point here. I doubt that on *any* use theory (anything on which meaning is a matter of rules, verification procedures, etc.) whatever constitutes a sen-

tence's meaning would explain or vindicate assigning our preferred truth-conditions to that sentence. Conversely, whatever motivates assigning truth-conditions will not be an aspect solely of use. Consequently, no version of an "implicit knowledge" of truth-conditions would be viable.

5. The principle "for each s, s is used by x to express the thought which s is used by me to express" does not help much. For if the thought which s is used by me to express is not a matter simply of "thinking s", then my knowledge, for each x, of what thought x is used by me to express is itself not summarized by a simple formula.

6. This is a different treatment of Twin-Earth considerations than I gave in [8], Ch. VII. Cf. Stephen White, "Partial character and the language of thought", unpublished.

7. Naturally the question whether T is suitably *unique* is important; see [8], 8.3.

REFERENCES

[1] Davidson, D., "Belief and the basis of meaning," *Synthese*, vol. 27 (1972), pp. 309-323.

[2] Field, H., "Mental representations," *Erkenntnis*, vol. 13 (1978), pp. 9-61.

[3] Fodor, J., "Methodological solipsism," *Behavioral and Brain Sciences*, vol. 3 (1980), pp. 63-73.

[4] Harman, G., "Three levels of meaning," *The Journal of Philosophy*, vol. 65 (1968), pp. 590-602.

[5] Harman, G., "Meaning and semantics" in *Semantics and Philosophy*, eds., M. Munitz and P. Unger, New York University Press, New York, 1974.

[6] Harman, G., *Thought*, Princeton University Press, Princeton, New Jersey, 1975.

[7] Harman, G., "Language, thought, and communication," in *Language, Mind, and Knowledge,* ed., K. Gunderson, University of Minneapolis Press, Minneapolis, Minnesota, 1975.

[8] Loar, B., *Mind and Meaning,* Cambridge University Press, Cambridge, 1981.

[9] McGinn, C., "The structure of content," in *Thought and Object,* ed. A. Woodfield, Oxford, 1981.

[10] Putnam, H., "Reference and understanding," in *Meaning and the Moral Sciences,* Routledge and Kegan Paul, London, 1978.

[11] Quine, W., *Word and Object,* MIT Press, Cambridge, Massachusetts, 1960.

[12] Quine, W., *Philosophy of Logic,* Prentice-Hall Inc., Englewood Cliffs, New Jersey, 1970.

[13] Schiffer, S., "Truth and the theory of content," in *Meaning and Understanding*, eds., H. Parret and J. Bouveresse, W. de Gruyter, Berlin, 1981.

[14] Stich, S., "Dissonant notes on the theory of reference," *Nous,* vol. 4 (1970), pp. 385-397.

Department of Philosophy
University of Southern California
Los Angeles, California 90007