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LINGUISTIC COMPETENCE AND FOLK THEORIES OF LANGUAGE:  
TWO ENGLISH HEDGES

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In the ordinary sense in which we say that words like chair and table are ABOUT furniture, hedges are words about language and speech.<sup>1</sup> There is nothing remarkable in this; language is part of our environment, and we have words about most things in our environment. The linguistically interesting aspect of hedges is that, although they are about language, they are not exactly used to talk about language as we would say that chair and table are used to talk about furniture or, for example, gerund and entailment are used to talk about language. When we use a word like chair or table or gerund or entailment, chairs, tables, gerunds, and entailments do not become ipso facto part of what is said. With hedges it is different; when we use a hedge like loosely speaking, the notion of 'loose speech' which this expression invokes becomes part of the combinatorial semantics of the sentence and utterance in which it occurs. A familiar (if probably vacuous) combinatorial semantic rule is

- (SR) If adjective a denotes class A and noun n denotes class N, then the denotation of the expression an is the intersection of the classes A and N.

I wish to claim that the notion of 'loose speech' is part of the combinatorial semantics of sentences containing the expression loosely speaking in the same way in which the notion of class intersection is claimed by proponents of (SR) to be part of the combinatorial semantics of an expression like red chair.

A hedged sentence, when uttered, often contains a comment on itself or on its utterance or on some part thereof. For example,

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<sup>1</sup>The present paper is based on a much longer work on hedges which is still in progress but part of which has been made semi-public in a typescript ms. (Kay, 1979) of which the subtitle was 'hedges revisited.' The word 'revisited' referred to the well known paper of George Lakoff (1972). In Kay (1979) I discuss in detail Lakoff's approach to hedges and my own agreements with and divergences from that approach; space does not permit a recapitulation of that discussion here. Also in that (1979) paper there are references to personal communications and advice from many people whose contributions cannot be recited here, although all have helped shape my view of the subject. I must acknowledge, however, a very general intellectual debt to Charles Fillmore and George Lakoff.

when someone says, Loosely speaking France is hexagonal, part of what they have uttered is a certain kind of comment on the locution France is hexagonal. In this sort of metalinguistic comment, the words that are the subject of the comment occur both in their familiar role as part of the linguistic stream and in a theoretically unfamiliar role as part of the world the utterance is about. Such metalinguistic reference seems unaccounted for (an perhaps unaccountable for) in standard theories of semantics that are based on a context-free, recursive definition of truth for sentences, and in which linguistic objects and world objects (or objects in a model) belong to disjoint realms. The problem, I believe, goes beyond that of indexicality as usually conceived, and although it would be interesting to investigate in detail the relation between the kinds of facts to be discussed here and discussions of indexicality within model theoretic semantics (e.g., Kaplan 1977), that comparison will not be attempted. The omission might be justified by appeal to limitations of space, but such a plea would be less than candid, as I suspect that the phenomena I will describe constitute a principled set of exceptions to any theory of natural language meaning that makes a rigorous separation between truth conditional meaning for linguistic types (i.e., sentences), normally called 'semantics,' and other aspects of meaning, frequently called 'pragmatics' (see, for example, Gazdar 1979: 2f). The latter claim would, to be sure, require considerable clarification before a demonstration could be begun. In the present paper I must content myself with presenting a few facts and some timid empirical generalizations.

The principal conceptual tool I will employ for stating these empirical generalizations will be that of 'folk theory.' The term is borrowed from anthropology. In describing the system of knowledge and belief of another culture, an anthropologist speaks of that culture's folk theory of botany, the emotions, language, and so on. Anthropologists discover such folk theories by analysis of the use of words in the native language. The guiding idea is the familiar one that any natural lexicon implies a tacit, structured conceptualization of the stuff that the words of that lexicon are about. What the words we shall be concerned with here are about is language and speech, and the folk theory we shall be looking for is the tacit and mostly unconscious theory of language and speech we invoke when we employ certain parts of the lexicon of English.

The present essay is thus in the first instance lexicographical. But we will see that in the domain of hedges, lexicography is inseparable from combinatorial semantics because the schemata or folk theories that constitute the semantic content of the hedges as lexical items serve as combinatorial structures for putting together the meaning of the sentences in which the hedges occur. Hence, world knowledge about language--what I have called folk theories of language--may at times be part of knowledge OF language.

Knowledge of language, linguistic competence, is commonly distinguished from knowledge of the world. Linguists do not generally consider it a matter of interest that the language we are competent in is also in our world and therefore a thing of which we

have world knowledge, i.e., a folk theory. Certainly linguists do not often ask whether world knowledge of language bears some special relation, that other sorts of world knowledge do not bear, to the knowledge that constitutes linguistic competence. Perhaps the question is not posed because the answer is considered obvious, namely NO. The facts to be considered below suggest, however, that the folk theory of language presupposed by various hedges should be interpreted both as world knowledge ABOUT language and as knowledge OF language--i.e., as part of linguistic competence.

The data to be considered in this paper concern two hedges, loosely speaking and technically. The concept 'folk theory' will figure in the analysis of the meaning of each of these expressions. The comparison of the two analyses will reveal a not altogether obvious difference between the folk theories that constitute our tacit knowledge of the world (as realized in word meanings) and consciously formulated theories: folk theories, like conscious theories, answer to a requirement of local consistency but, unlike conscious theories, folk theories answer to no requirement for global consistency.

### Loosely Speaking

The hedge loosely speaking may be employed in the service of a variety of semantic and/or pragmatic functions which, from a traditional point of view, appear disconcertingly diverse. Let us consider some of the possible semantic-pragmatic roles of loosely speaking in the response of Anthropologist A to Layman L in the following dialogue.

- (1) L: Where did the first human beings live?  
A: Loosely speaking the first human beings lived in Kenya.

First, believing the evolutionary process to be inherently gradual, A may consider the expression 'the first human beings' to be semantically ill-formed and hence devoid of the capacity for non-vacuuous reference. If A had this problem, believing that 'the first human beings' couldn't possibly refer to anything, he might reply more fully

- (2) A: Strictly speaking, one can't really talk about 'the first human beings,' but loosely speaking, the first human beings...

Secondly (and alternatively), A may think that 'the first human beings' is a normal referring expression, but not the one that picks out exactly the entity about which he wishes to assert 'lived in Kenya'. For example, A may consider it important to distinguish in this context 'the first human beings' and 'the first human beings known to science'. If this were A's reason for hedging with loosely speaking, his fuller answer might be along the lines

- (3) A: Strictly speaking, we can only talk of the first human population known to science, but loosely speaking, the first human beings...

A's problem may be not with 'the first human beings' but rather with 'in Kenya.' A third motivation for loosely speaking could then be that A considers the unhedged sentence 'The first human beings lived in Kenya' to have a reading which presupposes the modern nation of Kenya to have existed at the time the first human beings were alive. Such fastidious pedantry might motivate a longer reply along the lines

- (4) A: Loosely speaking, in Kenya. Strictly speaking in the place now called Kenya.

Fourthly, and perhaps most typically, A may think that the unhedged sentence 'The first human beings lived in Kenya' oversimplifies or otherwise distorts the pertinent facts, but is nonetheless the best he can do given the exigencies of the conversational situation. Sometimes the demands of Gricean Quantity (Say no more than necessary) and Manner (Be brief) require a sacrifice in Quality (Tell the truth). In our present example, the relevant facts might involve sites not only in Kenya but also in Uganda and Tanzania, fossils of uncertain relation to each other, and so on. Loosely speaking can be and probably often is used to apologize for this sort of deficiency in Quality, induced by the demands of Quantity and Manner. The fuller version of A's reply could be something like

- (5) A: Loosely speaking in Kenya. Strictly speaking, we are dealing here with a complex situation involving sites mainly in Kenya, but also in Tanzania and Uganda, and with a set of fossils which may not all represent the same species...

Examples (2-5) illustrate four distinct kinds of 'loose speech' that the hedge loosely speaking may reflect in (1): (i) the use of an incoherent description in an act of reference (2); (ii) the use of a coherent but 'wrong' description in an act of reference (3); (iii) the utterance of a sentence that (the speaker feels) permits an unintended interpretation that contains a false presupposition (4); and (iv) the utterance of a sentence that is defective in Gricean Quality, that is, in truth (5).

What, then, does loosely speaking mean? George Lakoff (1972) gives the example

- (6) (a) A whale is a fish. (FALSE)  
(b) Loosely speaking, a whale is a fish. (TRUE)

and argues that the semantic function of loosely speaking is that of a predicate modifier which, through selection of certain features

of meaning internal to the intension of a category word like fish, maps it into another category-type intension. But we see that this cannot be correct, since in (1) loosely speaking does a variety of things that have nothing to do with the modification of a category word. Furthermore, it may do several of these things simultaneously: in uttering his part of (1), A might be bothered by any combination of the factors discussed in connection with (2-5) (except of course those combinations containing both (2) and (3), since these happen to be mutually exclusive.). Thus the semantic scope of loosely speaking must be at least as broad as the entire sentence it accompanies, e.g., in (6)(b) the sentence a whale is a fish. Since presence or absence of loosely speaking in a sentence such as (6) may affect our judgment of its truth, the classical view holds that loosely speaking must make a contribution to the semantics of the SENTENCE in which it occurs. Since the scope of loosely speaking must be at least as broad as the whole sentence it accompanies, its scope must be that whole sentence, and one is tempted to conclude that the semantics of loosely speaking is a function from sentence intensions to sentence intensions--i.e., from the set of worlds in which whales are fish (the null set in some theories) to the set of worlds that are like this one with respect to the fishiness of whales. But nothing of this sort can be right because, as we saw in connection with (2), loosely speaking sometimes functions to comment directly on the FORM of the sentence it accompanies.

Moreover, when (6)(a) is changed to (6)(b) by the addition of loosely speaking the reason that our judgment changes from false to true is not that a false proposition P (= a whale is a fish) has been changed into some true proposition P'. Rather, we abstain from judging (6)(b) false because we understand (6)(b) both to assert the sentence a whale is a fish and to express a reservation regarding the adequacy of that assertion. If the dimension of adequacy is taken to be that of truth (tightness of 'word-to-world fit') as seems to be the relevant dimension in the case of (6)(b), then we have no trouble accepting a judgment of true. In the general case, however, the dimension of adequacy directly addressed by the hedge loosely speaking need not be that of truth: the loose speech referred to may involve laxness in obedience to the rules of language, as in (2) and perhaps (3), or even looseness with respect to stylistic canons, as in (4). Of the four examples, (2-5), only (5) directly concerns truth, and even in this case, we do not experience (1) as expressing some proposition P', which is distinct from but closely related to 'The first human beings lived in Kenya,' and which is exactly true.

The empirical claim about loosely speaking that I have attempted to develop may be summarized as follows:

- (7) For any sentence S of the form loosely speaking P, where P is a declarative sentence, an utterance of S constitutes two acts:
- (i) an act of asserting P,
  - (ii) an act of warning that (i) is in some way a deviant (loose) act of assertion.

Probably the most typical way for an assertion to be deviant is in terms of Quality, but, as we have seen an assertion may have other kinds of defects about which loosely speaking warns.

If (7) is even approximately correct, expressions such as loosely speaking present an interesting challenge to current formal theories of semantics and pragmatics. If loosely speaking means what (7) says it means, this is surely its literal meaning (not figurative, ironic, etc.). Although (7) specifies the literal meaning of loosely speaking, (7) does not consist of a specification of truth conditions of either S or P, but rather expresses a warning to the addressee that he should be wary in his acceptance of the assertion of P. If (7) is correct, literal meaning and truth conditions cannot always be the same thing, not even almost the same thing.

It is not obvious how the meaning of an expression like loosely speaking is to be captured in a theory of the generally accepted kind, where the truth conditional meaning of a sentence is established in terms of a possible world semantics independent of pragmatic considerations, and no feedback from pragmatic reasoning to literal meaning is countenanced. But even supposing that with sufficient ingenuity we could develop an account of loosely speaking within this kind of framework, it is not clear that we should wish to do so. If we look at the different kinds of semantic-pragmatic functions that may be accomplished by loosely speaking (illustrated, though by no means exhausted, in (2-5)), we find that they constitute, from the traditional view, a disparate collection. Another way to view the same matter is to notice--as the reader may already have done--that (7)(ii) is stated far too broadly. Loosely speaking doesn't point to just any kind of deviance in an act of asserting. For example, acts of assertion that deviate because they contain uninterpretable indexicals or because they fail to answer a question just posed are not examples of 'loose speech.'

- (8) (a) Jack and John were running and { \*loosely speaking he }  
fell down. { one of them }
- (b) A: When did Mary get her car tuned up?  
B: \*Loosely speaking, because the engine was knocking.

I have spoken informally of the various kinds of 'loose' speech represented by examples (2-5), and in this informal usage I think lies the key to the semantic unity of the expression loosely speaking. I suggest that what enables us to speak informally about 'loose' speech in connection with all of these examples is what constitutes the actual semantic unity of the expression loosely speaking. In every utterance of a sentence like (1), the linguistic act of asserting that the first human beings lived in Kenya is talked ABOUT (in the same familiar sense in which we say that in the utterance of a sentence like trout eat flies trout are talked about). That is, when we say Loosely speaking P we bring to bear part of our world knowledge of what it is to assert something, or, as I

would prefer to say, we bring to bear part of our folk theory of language and speech--the part that concerns assertion. We have knowledge, beliefs and schematizations of language and speech just as we have knowledge, beliefs and schematizations of everything else in our experience. When we use a hedge like loosely speaking in an utterance we use it to talk about some other part of that same utterance, and so at one level we use our world knowledge of language and speech in the same way we use our world knowledge about zoology when we employ the word trout or fly. Loosely speaking interprets the utterance in which it occurs as a world object according to a particular folk theory of utterance, which is part of our larger folk theory of language and speech.

To speak loosely is to assert something not quite true. Typically, loose speech is speech that would be true in a world slightly different from the one we are describing, but in some cases we characterize our speech as loose if it fails to achieve precise truth because of some defect in its construction. Expert theories of language and speech normally make a strict distinction between locutions that don't (quite) state propositions and locutions that state propositions that aren't (quite) true; but not all parts of our unconscious folk theory of language and speech insist on this distinction; loosely speaking appears to invoke such an area of the folk theory.

### Technically

Technically, used as a hedge, has a meaning that may be roughly glossed 'as stipulated by those persons in whom society has vested the right to so stipulate.' Thus when we say, Technically, a whale is a mammal, we appeal to the fact that systematic biologists have decreed that, whatever we common folk may say, whales are mammals. One line of evidence for this analysis of technically comes from pairs of synonyms--or near synonyms-- of which one member belongs to an authoritative jargon; in such pairs only the member from the jargon takes the hedge technically.

- (9) (a) Technically, that's a rodent. (order Rodentia)  
 (b) \*Technically, that's a varmint.
- (10) (a) Technically, that's an insect. (order Insecta)  
 (b) \*Technically, that's a bug.

The (b) versions may be heard as attempts at humor precisely because the words varmint and bug, not only belong to no technical jargon, but, on the contrary, are markedly colloquial.

Further, if we hear a sentence like

- (11) Technically, street lights are health hazards.

our reaction is to wonder WHO has decreed that street lights are health hazards and BY WHAT AUTHORITY. If we learn that the Surgeon General of the United States has done so, even if we reject his arguments and therefore question the wisdom of the stipulation, we

cannot legitimately deny the claim expressed in (11). If, on the other hand, we learn that an individual genius has proclaimed street lights to be health hazards on grounds we consider impeccable, we will surely agree that street lights are in fact health hazards, but we may well deplore that the claim expressed in (11) is not the case.

Lakoff (1972) attributes to Eleanor Rosch a revealing example similar to the following,

(12) Technically, a TV set is a piece of furniture.

pointing out that the sentence can have different truth values in different contexts, if there exist in society two distinct bodies with the authority to make such stipulations about TV sets and furniture. For example, moving companies might designate TV sets as furniture, while the insurance industry excludes TV sets from furniture.

Given this account of the meaning of technically, we may ask whether technically displays the two properties of hedges, previously discussed, that provide problems for standard formal semantics. These, it will be recalled, are (a) that the lexical meaning of a hedge may become one of the organizing schemata of the combinatorial semantics of the sentence in which the hedge occurs, and (b) that a hedged sentence may contain a metalinguistic comment regarding the way in which a word or phrase of the sentence is being used in that sentence.

Regarding property (a), if we sketch the logical structure of (12) in terms of our intuitive account of technically, we get something with the rough structure of (13), in which we find that the effect of the word technically is not confined to a single element but is distributed throughout the quantificational and predicational structure of the sentence.

(13) There is an x such that Society has authorized x to stipulate the meaning of TV set, and Society has authorized x to stipulate the meaning of furniture, and x has stipulated the former to be included in the latter.

The precise wording of (13) is not intended to be taken literally; the point of (13) is just that most of the 'logic syntax' of (12) comes from the word technically. The lexical meaning of technically provides the structural skeleton of the meaning of sentences, like (12), in which it occurs. In this respect, technically acts like 'logical' words (e.g., all, and, not) are supposed to act. But we noted that technically is a substantive, world-knowledge-embodying word; in fact it is precisely by virtue of the folk theory it embodies regarding language, society, and the social division of linguistic labor that technically achieves its organizing function in sentences like (12). Semantics and mere lexicography find themselves confounded.

That technically displays property (b)--regarding metalinguistic comments in which the linguistic item(s) MENTIONED are simultaneously USED as a regular linguistic counters--is not apparent from the examples so far given (9-12). One reason for this is that since the target words

(e.g., TV set and furniture in (12)) appear with the generic indefinite article, the examples conduce to a straightforward interpretation in which these words are mentioned, but not also used. Consider, however, the following.

- (14) The movers have come for your furniture, which technically includes TV sets.

Here the word furniture is both used and mentioned: furniture is used in the ordinary way as the lexical head of a definite noun phrase, your furniture, to pick out a set of world objects; furniture is simultaneously mentioned as the topic of a metalinguistic comment, which informs us that, by stipulation of relevant authorities, the extension of furniture includes TV sets.

### Comparison of loosely speaking and technically

In the case of each of the two hedges considered, I have sought to explain both its lexical meaning and its combinatorial semantic function in terms of a metatheory in which there is a linguistic system disjoint from the world whose elements (words, sentences) may be combined to represent objects and states of affairs in the world via the meanings or intensions of those elements. The sentence Snow is white is true... This general schematization of language is familiar as an informal sketch of the basic intuitions that lie behind the formidable accomplishments of that tradition of semantic theorizing which descends from Frege via Tarski to the modern proponents of model theory, including in particular the various versions most relevant to linguists arising from the work of Richard Montague. In this framework, words may refer to or represent world objects because the former have intensions that may be matched by the actual properties of the latter.

This conscious theory of language, and particularly of reference, has recently been opposed by the baptismal-causal theory of Kripke (1971) and Putnam (1975). The reader may have noticed that in discussing the meaning of technically, I had recourse to Putnam's phrase 'the division of linguistic labor' (1975: 145ff). The part of the folk theory of language which technically invokes seems in its main lines to agree with the theory of Kripke and Putnam, especially Putnam's version. On this view, a word refers, not via an intension it contains, but on account of someone having once stipulated that henceforth this word shall designate some ostensibly presented thing or thing-type. Putnam's idea that we have unconscious recourse, in using a word like gold, to the notion of some expert or official who has the right and the knowledge to diagnose real world gold in a presented sample is especially close to the account I have given above of that aspect of the folk theory of language which underlies the use of technically.

Thus when we use loosely speaking, we are taking a Fregean view of language and, moreover, because of property (a), we are organizing the semantics of our utterance in accord with Fregean notions. On the other hand, when we use the hedge technically, we are taking a Putnamian view of language and are organizing the semantics of our utterance along Putnamian lines. If a natural language like English has a formal seman-

tics that employs logical schemata such as conjunction, negation, etc., to compose the meaning of a sentence from the meaning of its parts, then we must number among that same array of structure-composing schemata such substantive folk beliefs about language as those implicitly underlying the explicit theories of reference associated with scholars like Frege and Putnam. These are the combinatorial semantic schemata invoked by loosely speaking and technically respectively.

### Folk theories

I have written throughout this paper in terms of a single folk theory of language and latterly pointed out that this 'theory' differs from conscious theories in that it is not internally consistent. I could as easily have written that English encodes a variety of different folk theories of language. The distinction would have been merely terminological and the same conclusions would have been reached. There are two points here: the first is that a folk theory does not present a globally consistent whole the way a conscious, expert theory does. This should surprise no one, since it is precisely the conscious reflection characteristic of expert theorizing that is generally considered to produce its global coherence. The second point is that folk theories are not 'believed' in the way conscious theories are but are used or presupposed as the occasion of thought or communication demands. The penetration of these folk theories of language into the semantic structure of language, via hedges, appears to present several challenges to the generally accepted framework of much current semantic theory.

### REFERENCES

- Gazdar, Gerald 1979. Pragmatics. New York: Academic.
- Kaplan, David 1977. "Dthat" in Contemporary Perspectives in the Philosophy of Language. Ed. Peter A. French, Theodore G. Uehling, Jr., and Howard K. Wettstein. Minneapolis: University of Minn.
- Kay, Paul 1979. The Role of Cognitive Schemata in Word Meaning: Hedges Revisited. Ms. 59pp.
- Kripke, Saul 1971. "Naming and Necessity" in Semantics and Natural Language. Ed. Gilbert Harmon and Donald Davidson. Dordrecht, Holland: Reidel.
- Lakoff, George 1972. "Hedges, a Study in Meaning Criteria and the Logic of Fuzzy Concepts" in Papers from the Eighth Regional Meeting. Chicago Linguistic Society. Chicago.
- Putnam, Hilary 1975. "The Meaning of Meaning" in Mind, Language and Reality. Cambridge: Cambridge University Press.