DISCUSSIONS AND EXPOSITIONS

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REMARKS ON "MODALITY AND CONVERSATIONAL INFORMATION"*

Groenendijk and Stokhof have developed a modal system which accounts for a specific possibility meaning of English *may*. Some facts about modal expressions which are not discussed by them throw doubt on the extent to which their analysis accounts for related modal expressions.

In their article "Modality and conversational information", Groenendijk and Stokhof propose an analysis of modal expressions which contain in their semantic representations one common element—a sentential operator meaning "is possible". While their inclusion of conversational information in the analysis of modal expressions is clearly desirable, I maintain that the authors have not given enough consideration to some of the properties of the modal expressions. Further consideration of these expressions reveals difficulties which need to be resolved before G. and S.'s analysis can be applied in the manner they intend. I might add that the criticisms I make of G. and S.'s analysis are criticisms one could also level against many similar attempts to treat in a uniform way modal expressions connected with a sentential operator meaning "is possible". Two of their claims which I shall scrutinize more carefully are (I) "*maybe, perhaps* are syntactic realizations of the same element in semantic structure as [*may*-in-the-possibility-meaning]" (p 71), and (II) "*Maybe, perhaps, possibly* and *necessarily* all have only one meaning, viz. a meaning corresponding to the possibility meaning of *may* and *must* respectively" (p 64).

Claim I

Claim I is an attractive proposal—certainly there are *maybe|perhaps* sentences and *may* sentences which are very close in meaning. Nevertheless, the claim requires justification and there seems to me to be at least a couple of ways in

* I would like to acknowledge the help of Ray Cattell in discussing these ideas with me. Responsibility for errors remains of course my own.

which claim I could fail to be true, despite similarities in meaning between *maybe/perhaps* and corresponding *may* sentences.

As the "semantic structure underlying" (1), G. and S. propose (1′):

(1) John may be ill.
(1′) May (John be ill)

While there may be evidence for thinking that (1′) is a syntactic source for (1) and related to it by a transformational rule (of Raising), (1′) as it stands cannot be a semantic representation of (1). The argument of *may* in (1′) is a non-sentence of English ("John be ill") and is only partially intelligible. (1′) is unsatisfactory as a semantic representation of (1), because (1′) is not fully intelligible.

However, one can ask what G. and S. were trying to express about (1), in constructing (1′) as its underlying semantic structure. If the *be* in (1′) is meant to signify a timeless or tenseless relationship between John and the state of illness, then clearly (1′) is not the semantic structure underlying (1). In (1), there is speculation about John being ill *now* or *in the future,* it cannot be interpreted as speculation about John being ill at an unspecified time. Suppose, then, we take the *be* in (1′) to mean either *is* (PRESENT—*be*) or *will be* (FUTURE—*be*).[1] Now one must decide whether these two meanings of *be* in (1′) are to be treated as a case of ambiguity or as a case of vagueness (i.e. lack of specificity). If the two understandings of *be* are a case of ambiguity, then (1) derives from either of two distinct underlying structures (1(a), 1(b)); if the two understandings are a case of vagueness, then (1) derives from one underlying structure 1(c):

(1 a) May (John PRESENT-be ill)
(1 b) May (John FUTURE-be ill)
(1 c) May (John NON-PAST-be ill)

The contribution of Zwicky and Sadock (1975) is to show how careless previous arguments for either ambiguity or vagueness have been and to elucidate the difficulties inherent in different tests. At the very least, they have shown the

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[1] If we do allow infinitival forms to appear in place of finite forms in semantic structures together with a convention for further interpretation then there will be a number of different conventions needed. If (1′) is taken to be the semantic structure underlying (1), (i′) would have to be the semantic structure underlying (i)

(i) John seems to be ill
(i′) Seems (John be ill)

In the purported semantic structure (i′), *be* must be further interpreted as PRESENT-*be*. *Be* in this case cannot be interpreted as FUTURE-*be* as in (1′).

Obviously the use of infinitival forms in place of finite forms in semantic structures is an abbreviation of sub-structures, which could, in detail, prove embarrassing.

complexity of justifying claims about ambiguity. In the absence of any discussion at all by G. and S. about the status of the two understandings of 1, there is as much justification (or lack of it) for taking 1 to be vague (hence, derived from (1c)) as ambiguous (hence, derived from (1a) or (1b)). *Maybe/perhaps* sentences, on the other hand, must derive from structures like (1a) or (1b), but not from structures like (1c). Although both *may* sentences and *maybe/perhaps* sentences derive from structures containing sentential operators, the arguments of the *may* operator might be restricted to include NON-PAST forms of verbs, while arguments of the *maybe/perhaps* operator cannot contain such forms. Insofar as the operators will then take different sets of structures as arguments, we cannot say the operators are identical. As long as the problem of whether (1) is ambiguous or vague remains unsolved, there will be doubts about the validity of claim I.

Even if one were to take (1) to be ambiguous and derive from either (1a) or (1b), there is still a possibility that the semantic structures underlying *maybe/perhaps* sentences, (2a) and (2b), are distinct from (1a) and (1b):

(2a) { Maybe / Perhaps }, John is ill.

(2b) { Maybe / Perhaps }, John will be ill.

First of all, I will quote one view of the relationship between finite and infinite forms which I think is correct only to a limited extent:

"Basic to our treatment of infinitives is the assumption that non-finite verb forms in all languages are the basic, unmarked forms. Finite verbs, then, are always the result of person and number agreement between subject and verb, and non-finite verbs, in particular, infinitives, come about when agreement does not apply. Infinitives arise regularly when the subject of an embedded sentence is removed by a transformation, or else placed into an oblique case, so that in either case agreement between subject and verb cannot take place." (Kiparsky and Kiparsky (1970)).

Now a finite verb form such as *is* clearly does signify the presence of a third person, singular subject and clearly if that subject is removed from the clause then there is no justification for such a finite verb form. But it has been pointed out in a number of places (Palmer (1965), Lakoff (1970), Leech (1971)) that finite forms like *is* imply not only particular number/person facts about the subject but also imply attitudinal facts about the speaker towards the event (in addition to or instead of facts about the time orientation of the event). Finite verb forms are determined in part by number/person characteristics of the subject and in part by tense/pragmatic considerations. The solution adopted by Kiparsky and Kiparsky links non-finiteness with absence of the first of these two factors. It seems equally feasible to link it with a deficiency in the second of the factors

or even with deficiencies in both of these factors.[2] One might argue, for example, that certain pragmatic factors (whether the event is vivid for the speaker, whether the speaker is involved in the event, how the speaker sees himself related to the event) appear optionally in semantic representations; only when such factors do appear, can finite forms possibly appear and, if such factors do not appear, finite forms cannot appear. Such a solution would mean that *may* takes as its arguments a different set of structures (namely structures lacking certain pragmatic specifications) to *perhaps/maybe*. Again, such a solution would make claim I false.

Claim II

In the previous section I have argued that even when there seem to be good paraphrases of *may* sentences with *maybe/perhaps* sentences, *may* and *maybe/perhaps* might still derive from distinct underlying sentential operators. In this section, I suggest that the semantic similarities between *may* and *maybe/perhaps* and some other modal expressions are not as straightforward as G. and S. assume.

A: Compare the following sentences:

(3a) This may be the best calculator in the world.

(3b) This is {possibly / perhaps} the best calculator in the world.

(3c) {Maybe / Perhaps} this is the best calculator in the world.

(4a) This may be the last tractor of its kind in use.

(4b) This is {possibly / perhaps} the last tractor of its kind in use.

(4c) {Maybe / Perhaps} this is the last tractor of its kind in use.

While there are contexts in which the sentences in 3 are interchangeable, there are contexts in which they are not. Suppose a shopkeeper is trying to persuade

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[2] Lakoff (1968), (pp. 69—70) discusses the derivation of infinitives from verb forms which in the course of the derivation alter their feature configuration. She suggests ways in which the tense marking might be altered at some intermediate stage but finds these unsatisfactory. She reaches a similar conclusion about the possibility of altering the number/person marking (in case such marking is evident before the subject is removed). As I see it, the two are quite different. There is no motivation for an alteration to the tense-marking of a verb, whereas the number/person signification of the verb depends on the presence of a subject and when that subject is removed, so too will the number/person features of the verb be removed (as argued by Kiparsky and Kiparsky).

a customer to buy a calculator. The shopkeeper may then utter (3a) in an attempt to get the customer to think positively about the calculator. (3c) would not have anything like the same salevalue. (3b) is more like (3a) than (3c).

Similarly (4a) attracts an interpretation of a more "sympathetic speculation" than does (4c). (4b) is like (4a).

Consider the sentences in (5):

(5a) Fred may be busy tonight.

(5b) Fred will {possibly / perhaps} be busy tonight.

(5c) {Maybe / Perhaps} Fred will be busy tonight.

(5a) can be used in a semi-apologetic way to mean something like "Fred has told me to tell you that there is a possibility he is going to be busy tonight". (5c) can never be used in this way; (5b) may be, but is not as usual as (5a) with the meaning under discussion.

Now, all of the sentences in (3), (4), and (5) have to do with possibility and it is quite reasonable to derive them from structures containing sentential operators roughly interpretable as "is possible". However, in the light of the differences just discussed it seems we must posit at least two different types of sentential operator (a *may* type and a *maybe* type). Furthermore, *perhaps* can be used to achieve the effects similar to either *maybe* or *may*. Thus claim II cannot be upheld.

B: *Maybe* and *perhaps* can be used in sentences with a force of a strong suggestion that something be done, whereas *possibly* is not as good in such contexts:

(6a) {Maybe / Perhaps} if you just give me that stick, I'll be able to reach the ball.

(6b) If you {?possibly just / ?just possibly} give me that stick, I'll be able to reach the ball.

(7a) {Maybe / Perhaps} you'd like a drink.

(7b) You'd possibly like a drink.

C: *Possibly,* but not *perhaps* and *maybe* can be modified by some adverbs and occur with a preceding negative:

(8) {quite / very} {possibly / *perhaps / *maybe}

just {possibly / *perhaps / ?maybe}

(9) Ted $\left\{\begin{matrix}\text{can't}\\\text{can not}\end{matrix}\right\}$ $\left\{\begin{matrix}\text{possibly}\\\text{*perhaps}\\\text{*maybe}\end{matrix}\right\}$ win the race.

((9) is acceptable with *perhaps* when *perhaps* is parenthetical, but then the negative particle is not linked to it.)

D: G. and S. claim that *necessarily* is related to *must* in the same way that *possibly* is related to *may*. Consider:

(10a) Tom may have had an accident.
(10b) Tom has possibly had an accident.
(11a) Tom must have had an accident.
(11b) ?Tom has necessarily had an accident.

(11b) is questionable at best and any meaning it has is very elusive. It does seem plausible that in (11b) the speaker might already know that Tom has had an accident, whereas in (11a) the speaker cannot know that Tom has had an accident.

The facts presented in A, B, C and D show dissimilarities in the meanings of the modal expressions and thus invalidate claim II. In light of the fact that claims I and II, as they stand, are not justified, one must not be misled into thinking that the analysis of modality offered by G. and S. can be applied without qualification to the modal expressions they wish to account for.

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