SEMANTIC THEORY AND THE CATEGORY OF PREDICATION

Haldur Õim

0. This (and the following) paper are intended to develop some of the ideas of the present semantic theory of generative grammar, especially those expressed in Fillmore 1968b.* We accept the view of the so-called generative semantics (most elaborated in many works by J.D.McCawley, of which we are acquainted with McCawley 1967, 1968a, 1968b). Semantic representations of sentences are understood by us as construed primarily of elementary semantic predicates and 'reference indices' (individual variables) as their arguments (along the lines suggested in the already mentioned works of McCawley and also in Fillmore 1968a, 1968b, Bach 1968, Langendoen 1967, Bierwisch 1969, and others; we have ourselves touched upon this problem in Õim, to appear).

As it should be clear, the present semantic theory needs conceptual elaborations in many questions, both in its form and in its substance.

First of all, we have no clear picture of what the semantic representation of a sentence has to include. Moreover, we have no clear idea of what a sentence is from the semantic point of view: what should there be in the semantic content of a sentence, that we could speak of sentences but of no other linguistic units as being true or false, being analytic, tautologous, contradictory, etc? As a consequence of this, we are unable to say (i.e. give the general principles which would determine it) how exactly the semantic description of concrete units - words, first of all - is to be given, what is to be included into these descriptions, and how these descriptions explain the semantic properties

*For the bibliography see H.Õim, On the semantic representations of predicates (in this volume).

of the corresponding concrete units.

As we can see, what is lacking is the general framework where the categories of semantics can be characterised and arranged on its own ground. The semantic theory of generative grammar has formed as a supplement to and - consequently - as dependent upon the theory of syntax. But now, when treating the syntactic structures as derived from the corresponding semantic structures, we, apparently, have to construe these semantic structures on the ground of their own underlying principles.

In the present paper we want to suggest that the category of predication yields just such a general framework, i.e. in fact, that the semantic theory has to be built up as a 'theory of predication'.

1. We understand the term predication in its usual sense (as 'saying something about something', 'adding new information to something already known'). In fact, it may be said, the notion of predication in our system takes finally over the role of Fillmore's notion of 'assertion' (Fillmore 1968b); although the content of our term, apparently, will differ considerably from the one put into the term 'assertion' by Fillmore, the idea of such treatment of predication is in fact suggested by Fillmorean treatment of predicate words. (Note, however, that 'assertion' would not be a very happy term here; its use would cause many complications which the use of 'predication', for instance, does not, see, e.g. Geach 1965).

2. It hardly needs any justification that predicativity is one of the most fundamental features of natural languages. Although there can be (and there are) many languages where the grammatical categories of subjects and predicates, or nouns, verbs, etc. are lacking, we cannot imagine any natural language where speaking does not contain speaking about something, where there is no new information added to something already known, and so on.

3. In this sense the problem of predication has, of

course, always been of interest for linguists (and is at the present time), but mostly under such names as 'functional sentence perspective' or 'topic-comment relation'. Some authors have also dealt with the possible role of this latter relation in the framework of generative grammar (Sgall 1967, Staal 1967, Dessö 1968, Kiefer 1968).* However, in this context the problem has always been approached from the side of concrete sentences. The question is generally put as following: what parts of sentences can be their topics (i.e. the parts that present the known information) and what parts can be comments (i.e. that convey the new information), or even: when we have a concrete sentence, how can we determine what is its topic and what is its comment? But we are of the opinion that there is little hope to solve the problem of the semantic nature of predication (or topic-comment relation) considering it from this side. Instead of such a 'phenomenological' approach we rather need a 'logical theory' of topic-comment relation (of predication). We need not at once try to describe the real - incidental - sentences (or even sentence types) in order to say which of their parts can function as topics and which as comments. If we put ourselves into the position of generative semantics, we also have to find such semantic categories and principles, on the ground of which all the actual cases of topic-comment relation - of predication - presented by real sentences in a language can be explained (derived as consequences). As it seems to us, the present semantic theory of generative grammar already has most of the crucial categories that are needed for this end; these are only to be put into the corresponding logical order.

4. Let us characterize now, in short, how we conceive the main lines of such a theory.

*In general the problems connected with the notions of predication and 'topic-comment' cannot be identified, of course. But when we consider these notions from the point of view of semantics, the problems become essentially the same.

4.1. The notion of predication, of 'adding new information to something already known' itself is to be taken as primary, as something intuitively given. It can be characterised only through the description of all instances of predication (of 'adding new information') possible in a given language (in much the same sense as the notion of sentence has been characterized in generative syntax).

4.2. For doing this, we have to find, first of all, the elementary, 'atomic' instances of predicative structures (or 'elementary situations' where we may speak of predication) in the given language; and through these atomic instances all the possible complex instances of predication should be defined.

4.3. Apparently, we have (in some sense) these 'atomic' instances of predication when we have all the units which can be used (in the given language) to predicate some new information - the predicates.

In fact, it may be said, we have already the class of such units in the present semantic theory. As it has been shown, all the contentful units of a language are to be treated (from the point of view of semantics) as belonging to one general category called verbs, contentives, or predicates. This includes all the words (which have some semantic content), but also a great number of 'abstract predicates' which are represented by no concrete word or even morpheme (but, for instance, by some grammatical constructions only). It should be clear that these are also just the predicates in our sense. In fact, one may be sure that the general idea which implicitly has underlain the establishment of this category is just the idea that every piece of information (presented by some word, 'abstract predicate', etc.) is to be introduced predicatively into the underlying structure of a sentence.

4.4. But, as we very well know, most of these units are semantically complex and we have to analyse them in order to establish what it is exactly that every one of them

'adds new information' when used predicatively, and what are the conditions where (in what situation) it can be used so. This analysis is, of course, the main work to be done practically in semantics. As the present semantic theory holds, the analysis must establish the semantic representation of every individual predicate, and this semantic representation must be construed in the way that it explains the semantic properties of the corresponding predicate. We know already much of what is to be included into semantic representations of predicates and how these are to be formed, but there is also much to be determined. The problems connected with semantic representations of predicates are our concern in the second paper in this volume.

4.5.When we have described in the case of every item (predicate) separately, what are its conditions of use and what exactly is the new information it introduces, we shall have described, apparently, all the possible singular ('atomic') instances of predication (i.e. the instances where just one predicate is involved) in the given language.And only now can we begin to determine how the real sentences of the given language are built up of these 'atomic' instances, i.e. begin the analysis of the 'phenomenological' aspect of the predication.

The main fact we want to point out here is that there is no (and there cannot be any) direct and simple correspondence between what can be said as new information by a particular sentence in a real situation and what shows the logical structure assigned to this sentence by the theory. To give a brief illustration, let us take the following example.

Suppose two persons, A and B, are conversing, and one of them, A, mentions a name of a third person, say C, but B has not heard formerly of such a person. He asks: 'who is C?'. And let A answer to him:

(1) C is the youngest son of the N's.

Suppose that in fact B knows who these N's are, but he does

not know anything about their family staff. Given this,we may certainly say that the sentence (1) is wholly normal in the given situation (in the sense that, first, the use of this sentence would be quite usual in such a situation and , second, B can perfectly understand what A has intended to tell him). Now we may ask what is the new information which B in fact acquires from this sentence? As it should be clear, this information comprises at least the following facts (which by themselves are, of course, not at all elementary, but may be taken as such in this illustrative example):

(a) N's have children;
(b) there are some sons among the children;
(c) among the sons there are at least three who are of different age;
(d) C is one of the sons;
(e) C is the youngest one of these sons.

As we see, B becomes acquainted with all these facts 'at once' through the sentence (1) (there is no doubt either,of course, that B becomes acquainted with these facts;after he has heard - and understood - the sentence (1), he certainly knows that N's have children, that there are some sons among them etc.)

But what this example shows us is only how concrete sentences can be used in the real process of communication. However, if we try to give a logical explanation of how such sentences are conceptually possible (i.e. when we consider them from the standpoint of the theory of predication),so there inevitably appears a logical arrangement among the facts which otherwise seem to be said 'at once' by a sentence. So, when we consider (a)-(e) as some 'elementary propositions' each of which introduces a 'piece of new information', so it is clear that they are logically possible just in the order they are given, i.e. it is possible to introduce every subsequent 'piece of information' only after the previous ones on the list are introduced (known to

B). We could say, when A had told all these facts 'piece by piece', so he had to tell them just in the given order. And note that it is not incidental at all that the only fact which is explicitly told in the sentence (1) (that C is the youngest son of the N's) appears as the last one on the list. This is just the fact that necessarily presupposes all the others; and it is just this necessity that enables us (and B of course) to establish these other facts (and the hierarchical ordering of them). As it appears, it is more appropriate to consider such a sentence as presenting a piece of (logically arranged) discourse rather than a single act of communication. And if we still remind ourselves of the fact that the units used in stating (a)-(e) - the words - are themselves to be analysed in terms of far more elementary units, it becomes evident how complex such a 'logical explanation' - the semantic representation - of a real sentence may be.

But at the same time, in virtue of the fact that we always have here a definite logical arrangement, it is not hard to imagine how in principle the structures presenting these explanations are to be determined. Within every complex structure there is always an 'utmost' predicate, i.e. the predicate which is introduced as the last one, and the whole structure has to satisfy the requirements of this predicate. In this sense every predicate determines a class of possible structures (sentences) where it is just this last one. Using this fact recursively we can in principle determine all the possible structures. But, indeed, this is only the determination in principle. In order to get the concrete sentences of a language we have to use the usual means of generative grammar.