Journal of Pragmatics 1 (1977) 251–268

TOWARDS A THEORY OF LINGUISTIC PRAGMATICS

HALDUR ÕIM

A possible approach to the description of the pragmatic structure of sentences is described. It is proposed that from the point of view of pragmatics every sentence should be treated as a message whose function is to modify the receiver's knowledge in a certain way. In the same sense as words are semantically complex entities that should be analyzed into more elementary semantic units, sentences should also be analyzed into elementary pragmatic components – elementary messages. Every elementary message represents a certain operation upon the receiver's memory. The pragmatic structure of a sentence may be explicated as a (typically non-linear) sequence of elementary message where every adds its 'piece of information' to the memory structures created by the previous messages. The theory of communicative dynamism, as elaborated by the Prague school of linguistics, is used as a source for establishing the sequences of messages corresponding to a given sentence.. Some other criteria for establishing elementary messages are also considered and the nature of the operations represented by these messages is discussed.

1. Introduction

Language is the instrument of communication by man. Many papers discussing the nature of language or some of its essential aspects begin with this assertion. And undoubtedly it expresses one of the most important facts about language. Language may have a grammar which is describable as a definite set of rules and it may contain a logic of its own, but this may also appear not to be the case – *a priori* such facts cannot be asserted or denied about language. But language is a means of communication and it fulfils this function effectively – this is an undisputable fact. It is essential, therefore, that we should depart from the given fact in explaining the nature of language and in describing its form. As with any instrument, in the case of language also, its form is ultimately determined by its function.

Communication is a process that takes place between two partners, a sender and a receiver. When in linguistics one speaks about communication, the process is usually described in the following way. The sender (the speaker) knows a certain fact and he wants to tell it to the receiver (the hearer). He 'takes' this fact from his memory and codes it into a definite message – a sentence or a text. The hearer receives the message and, departing from its linguistic form, decodes it into the corresponding contentful representation, in this way acquiring the knowledge of the

communicated fact. The task of linguistics is formulated on the basis of this approach as describing the correspondence between the surface forms of sentences and their semantic representations, which are understood as structures presenting the corresponding objective facts in the form of the configurations of abstract semantic categories. And in the sense that a grammar describes all the correspondences between surface structures and semantic representations which are possible in a language, such a description also explains, it is supposed, how language functions as a means of communication.

But the described treatment gives us a too narrow – and to a certain extent even false – picture of the process of linguistic communication. This process does not merely consist in giving the hearer isolated facts as some independent objects. One of the basic characteristics of linguistic communication is that the information told by the speaker to the hearer should always be connected with the definite information previously known to the hearer. From the point of view of the hearer understanding a sentence does not mean merely establishing its semantic representation. The information contained in the sentence should be connected with his previous knowledge, should be introduced into this knowledge in a definite place and in a way determined by the corresponding sentence itself. Only in the case that such a connection is established can it be said that the hearer has understood the sentence.

From this point of view, communication should be treated as a form of information processing. When some new information is told to the hearer, when he receives and understands this information, something is always *changed* in his knowledge. Sentences are units which are designed by speakers in order to call forth and to govern such changes in the memories of hearers. To describe language as an instrument of communication means, therefore, to account for these processes, to describe how the newly given information interacts with the previously known information in the case of the given sentence, what kind of modifications the adding of new information causes and how they proceed.

What requirements such an approach more concretely implies for linguistics has already been shown in general lines in some of our previous works (Õim 1971; 1973a). In these works we considered the solving of these problems as the task of semantics there. But it seems to us now that it is not reasonable and even not very precise to put these problems together with the traditional semantic problematics. If we take into account the general semiotic classification of linguistic relations, we will find that it would be more natural to treat the facts under consideration as belonging not to the field of semantics but to the field of *pragmatics*. As is known, in semiotics three basic kinds of relations are distinguished in any system of signs: (1) syntactic relations – these are the relations between the signs themselves in the messages; (2) semantic relations – these are the relations between the signs (respectively messages) and the real objects or events denoted by them; (3) pragmatic relations – these are the relations between the signs (messages) and their users.

In the case of natural language the study of its pragmatic aspect is often understood as the study of various evaluative, e.g. emotional and modal, moments con-

nected with the expressions of language. But on the basis or our previous discussion it should be apparent that the scope of linguistic pragmatics is far more extensive. Not only the emotional and modal aspects of a sentence, but any information contained in it, must affect the hearer in a definite way. Insofar as language is an instrument of communication it can be said that any information has been 'put' into a sentence only to reach a hearer and change something in his internal world. Linguistic communication is a process by which speakers govern definite kinds of information processing activities in hearers, and any information contained in a sentence ultimately serves this purpose. Accordingly, the task of pragmatics should be to investigate, in the case of all this information, how it reaches a hearer and what changes it causes in him.

Departing from this general standpoint we can formulate the basic tasks of pragmatic description of language in the following way. The pragmatic description of a language a should give definite answers for every sentence to at least the following questions:

(a) what are the structures – the 'knowledge' – that the given sentence is designed to modify, i.e. to which the sentence adds some new information;
(b) what do the modifications that the given sentence causes in these structures consist in, and what are the structures resulting from these operations.

From the pragmatic point of view, thus, every sentence should be treated as a certain program which takes as its input the information structures that present the previous knowledge of the hearer and gives as its result the definite other information structures that present the new, modified knowledge of the hearer. The natural language is thus treated as a certain programming language, namely as the programming language for human beings.

The main tasks of linguistic pragmâtics as a general theory can be formulated in the following way. The theory should explain:

(A) the principal nature of the information structures that are processed in the course of linguistic communication: what types of units they are made up of, how are they constructed from these units, what types of structures can be distinguished, etc.;
(B) what the processing of these structures consists in: what the individual changes or operations consist in, how they proceed, what types of operations can be distinguished, what general constraints hold with respect to them, etc.;
(C) to give certain general principles for constructing pragmatic descriptions of concrete sentences: how in the case of a sentence should be determined the corresponding information structures to be operated upon, what in the corresponding sentence determines the operations to be carried on, their character, their order, etc.

2.

2.1.

As was said, in pragmatics every sentence should be considered not as an abstract structure designating a certain objective situation (as it is in semantics) but as an instruction for the hearer to modify certain information structures in his memory, in other words, as a message. In the case of every single message two main parts should be distinguished: on the one hand that part which presents the hearer's known information to be modified by the given message and, on the other hand, that part which presents the new information on which the content of modifications depends. The first problem to be encountered is, therefore, the following: how, in the case of a concrete sentence, are we to determine these two parts?

Let us take a sentence, e.g. a usual Subject-Verb-Object sentence:

(1) The man is cutting a tree.

What, in this sentence, should be treated as presenting the known information and what should be treated as presenting the new information? The fact is that by itself the given sentence can be used to communicate several different messages. We can show this by emphasizing different parts of the sentence. (The emphasis is indicated by italicizing the corresponding part of the sentence):

(1a) The man is cutting *a tree.*
(1b) The man is *cutting* a tree.
(1c) *The man* is cutting a tree.

The effect of such emphasizing consists in bringing forth explicitly the opposition between known information and new information: the emphasized word carries new information while the remaining part of the sentence presents information which is presupposed to be known. Sentences (1a–1c) represent, therefore, three different messages. In a more explicit form we can present these messages in the following form:

(1a′) What the man is cutting is a tree.
(1b′) What the man is doing to a tree is that he is cutting it.
(1c′) The one who is cutting a tree is the man.

Sentence (1) itself – when considered from the point of view of its syntactic and semantic structures – can be used to communicate any of these messages. In other words, the sentence (1), which has one definite syntactic form and designates one definite objective fact (let us emphasize that the objective fact – the fact of the man's cutting a tree – is one and the same in the case of all the variants (1a–1b) and (1a′–1c′)) can be analyzed as a message in several different ways. What this means is that sentence (1) is pragmatically ambiguous. Taken by itself, it cannot be

given one definite pragmatic description. Since it can be interpreted in several different ways we have to establish all the possible interpretations of it and describe each of them as a separate message.

The problem consists, then, not in trying to find out what in the case of a given sentence – e.g. sentence (1) – would be more appropriate or more normal to consider as known information and what as new information. If we are interested in sentences as messages we have to discover and to analyze *all* the different possible ways of using a given sentence as a message. There is no sense in trying to find out what in the case of a given sentence (or sentence type) would be the most typical way of distributing new and known information in it. Instead, all the possible ways of mating such a distribution should be established. The first goal is scarcely attainable in linguistics (i.e. by purely linguistic means); the second – that of establishing all possible ways of distributing new and known information in a sentence – undoubtedly is.

As to the question of *how* these different possibilities of the distribution of new and known information should be established, let us point out first that the task of the general theory is not to give any practical tests or procedures for it, but only to establish a general criterion: what should be considered as different messages. And from the foregoing discussion it should also be clear what such a general criterion consists in: messages (in the case of a given sentence) that will call forth different sequences of operations in the memories of the hearers should be considered different.

Note that the situation here is quite analogous to the solution of the corresponding problem in semantics, for instance. In semantics as well it is generally accepted that in the case of every sentence (and every word) each of its meanings should be described separately. But the problem of how these meanings should be discovered is one that every linguist has to solve himself. He can find these meanings intuitively (and often he in fact does so); he has only to present some facts that demonstrate that the corresponding differences objectively exist in language.

In the discussion above we have in fact already presented two ways of establishing different possibilities of distributing new and known information in a sentence. The first possibility was to stress the different parts of the sentence (see (1a–1c)), the other was to construct paraphrases to the given sentence (within the limits of the sameness of the corresponding objective event or situation), in which the boundary between new and known information was explicitly pointed out (see (1a′–1c′)). According to the first criterion we can say that there are at least as many different pragmatic interpretations of a sentence (i.e. different possibilities for interpreting it as a message) as there are different possibilities of stressing its parts; according to the other, we can say that there are at least as many interpretations as there are different paraphrases of the corresponding type. There is still another test, which originally was elaborated by G. Hatcher (1956) and which often has been used by the linguists of the Prague school (see e.g. Daneš 1970; Sgall 1972). This is the so-called question test and it consists in establishing different

questions to which the given sentence would serve as an answer. For instance, sentence (1) could apparently be taken as an answer to at least the following questions:

(2a) What is the man cutting?
(2b) What is the man doing to a tree?
(2c) Who is cutting a tree?

Each of such questions determines uniquely the distribution of new and known information in the corresponding sentence, and consequently we can say again that there are at least as many different pragmatic interpretations of a given sentence as there are different questions to which the sentence can serve an answer.

As we can easily see in the case of sentence (1), there is a good correspondence between the interpretations which are established by using the given three criteria:

(3a) What is the man cutting?
The man is cutting a *tree.*
What the man is cutting is a tree.
(3b) What is the man doing to a tree?
The man is *cutting* a tree.
What the man is doing to a tree is that he is cutting it.
(3c) Who is cutting a tree?
The man is cutting a tree.
The one who is cutting a tree is the man.

Of course, we do not want to assert that the three interpretations given above are the only possible interpretations of (1) that can be established on the basis of the given criteria. For instance, it would apparently be quite normal to consider (1) as an answer to question (3d) also, and maybe even to something like (3e):

(3d) What is the man doing?
The man is *cutting a tree.*
What the man is doing is that he is cutting a tree.
(3e) What are you telling me?
The man is cutting a tree.
What I am telling you is that the man is cutting a tree.

I.e., practically, an interpretation of a sentence where all the information in it is new to the hearer is also possible. But it is not our purpose here at all to consider the several problems connected with the different types of interpretations which in fact are possible in the case of a given sentence. Our aim was only (a) to point out that in the case of a given sentence are, as a rule, many different possibilities for distributing the new and known information in it, in other words, that most sen-

tences, taken by themselves, are pragmatically ambiguous; and (b) to hint at some most typical ways for establishing such different interpretations.

2.2.

So far we have presented the situation as if every sentence – taken in a certain interpretation – represented one definite message. But most sentences of the language are far more complex than sentence (1). Therefore, if we were to confine ourselves to merely dividing sentences into two parts, each of these parts would turn out to have a quite complex structure. How should we describe the 'adding' of one of these complex structures to the other or, correspondingly, the modification of one of them under the influence of the other? It is clear that a definite general method is needed by means of which the operating with such complex structures could be reduced to operating with more elementary structures, in other words, that the 'processing of the memory structures' carried on under the influence of new information supplied by a sentence could be described in terms of definite elementary operations.

The concept departing from which such a reduction appears possible is the concept of communicative dynamism. This concept originates from the works of the Prague school of functional linguistics (see e.g. Firbas 1971). At the present time it is quite generally accepted, both in the functional generative conception proposed by P. Sgall and others (Sgall and Hajičová 1970; Sgall 1972), and in other systems.

The concept of communicative dynamism is based on the idea that from the point of view of distinguishing new and known information it is not appropriate to divide sentences into only two parts, one of which represents the known and the other the new information; instead, in the case of every sentence we have to deal with a definite hierarchy into which the components of the sentence – words, for instance – can be arranged according to the novelty of the information carried by them. The distinction between known and new information in a sentence is relative: every unit in the sentence carries the communication somewhat further, adding its 'piece of information' to the information already present. Every unit functions as a unit carrying new information with respect to the preceding units (preceding in the sense of the mentioned hierarchy, of course), but as a unit presenting known information with respect to the following ones.

The given characterization suggests that every unit in a sentence should be treated as presenting a separate message of its own – a message in which the unit itself carries the new information and the corresponding part or aspect of the previous information to which this new information is added forms the second part of the message. The corresponding sentence as a whole appears, from this point of view, to be represented not as a sequence of units but as a sequence of *messages*. Just as words, which are the most typical referring (semantic) units of language, are usually not elementary but are analyzable into complexes of much more elementary units, sentences, which are the basic communicative (pragmatic) units of lan-

guage, are also analyzable into complexes of more elementary units of the corresponding type – complexes of elementary messages.

Thus it should be evident how the notion of communicative dynamism helps us to overcome the difficulty described above. Actual sentences should not be treated as representing one single operation of adding new information but as sequences of such operations. Every sentence, no matter how complex the structure, is analyzable into a sequence of messages in such a way that in every individual message exactly one new unit, one piece of new information is added to the previously given one.

Let us now consider a little more closely what such sequences of elementary messages would look like. Let us first take a simple sentence, e.g. sentence (1). Interpretations (1a–1c) or, correspondingly, (1a′–1c′) have been presented as different examples of how the distribution of new and known information in sentence (1). In all of these examples new information is carried by one unit exactly. In terms of the present approach this means that the units under consideration have in the corresponding interpretations of (1) the highest degree of communicative dynamism. This in turn means that (1a–1c) or, correspondingly (1a′–1c′), in fact present the *last* elementary messages of the corresponding interpretations (the elementarity of these messages should be understood only conventionally, of course). And, using these messages as a basis it is not difficult to reconstruct the remaining messages of the corresponding sequences. We shall not dwell upon the details of such a reconstruction here. We have discussed the principal aspects of this problem elsewhere (Õim 1973b). Let us only illustrate the possibility of the reconstruction by a concrete example. Consider interpretation (1a) of sentence (1). The last message of this interpretation in an explicit form is, then, (5a = 1a′).

(5a) What the man is cutting is a tree.

It is not difficult to see that in the case of (5a) it is presupposed to be known to the hearer that the man under consideration is cutting something. Logically speaking, this information should at some former point in time have been introduced into the memory of the hearer. Consequently, departing from (5a) we can reconstruct a previous message which we can express in the following form:

(5b) What the man is doing is that he is cutting something.

This message in turn presupposes that the hearer already knows – i.e. has in some way or other been supplied with the information – that the man is doing something. And so we may, departing from (5b), reconstruct the message (5c).

(5c) The man is doing something.
(or: What is told about the man is that he is doing something)

If we go still further back in the same way, it should be noted that before receiving the message (5c) the hearer, apparently, should have known the man under consideration. Where this knowledge derives from is, from the linguistic point of view of no importance, of course. What matters is that the corresponding information should have entered the hearer's memory at some previous time; and this 'entering' we may formulate by the following message (we use the index *i* to point out that one definite man is in view and not any indefinite one):

(5d) There is a man$_i$.

From (5d) there is, apparently, nowhere to go further, and thus we get the following sequence of messages which corresponds to interpretation (1a) of sentence (1):

(6a) There is a man$_i$.
(6b) The man$_i$ is doing something.
(6c) What the man$_i$ is doing is that he is cutting something.
(6d) What the man$_i$ is cutting is a tree.

Let us emphasize that sequence (6a–6d) is not intended to reflect the way in which the corresponding information actually, in practice, has or should have reached the hearer. This sequence presents a theoretical explication of the 'information processing operations' which correspond to sentence (1) and which (in their order, in particular) can be reconstructed on the linguistic grounds only. If the hearer knows, for instance, that what the man is cutting is a tree (= 5a) then logically it cannot be that he does not know that the man is cutting something (=5b). But the converse may very well be the case: the hearer may know that the man is cutting something without knowing what it is exactly that he is cutting. It is this one-way 'if – then' relation by means of which we can on the basis of message (5a) – and using only linguistic information – reconstruct message (5b) and arrange them in the order given above (in sequence (6)). Exactly the same holds with respect to the other messages under consideration. Sequence (6) as a whole presents a linguistic description of the (complex) act of communication which corresponds to sentence (1). In this sense we may say also that sequence (6) presents – on the informal level – *a pragmatic representation* of sentence (1), contrasted to its syntactic and semantic representations. Each of the messages (6a–6d) represents one operation upon the memory of the hearer, whereas sequence (6) as a whole represents the sequence of operations which corresponds to all of sentence (1).

2.3.

Since most of the sentences of a language do not have such a simple structure as (1), the sequences of messages corresponding to them also are not as simple as sequence (6). To illustrate some of the problems which arise in the more complex cases let us consider the following sentence.

(7) The guide warned the men who were making for the forest of an attack of snow-men.

We will not attempt here to establish all the possible pragmatic interpretations of this sentence but merely will choose one of them. We will also not present here the procedure for establishing the order of elementary messages inside of the chosen interpretation. This is not our concern here. We will present the sequence of messages which corresponds to the interpretation of (7) chosen by us, and then will analyze it more closely.

The interpretation chosen by us is the one in which the highest degree of communicative dynamism is carried by the word *snow-men* (this is, then, the interpretation which corresponds to the most neutral pronounciation of (7), the heaviest stress being placed upon the last word in it). The sequence of messages which we get in the case of this interpretation can be presented as follows (let us remind ourselves once more that this is an informal presentation; the problems of a more exact nature and form of elementary messages will be considered later in this article:

(8a) There was a guide.
(8b) The guide did something.
(8c) What the guide did was the he warned someone of something.
(8d) There were men.
(8e) The men were doing something.
(8f) What the men were doing was that they were making for some place.
(8g) There was a forest.
(8h) The place for which the men were making was the forest.
(8i) The ones whom the guide warned were the men (who were making for the forest).
(8j) What the guide warned the men of who were making for the forest was an attack by someone.
(8k) The ones of whose attack the guide warned the men who were making for the forest were snow-men.

As one can see, such a sequence is quite long and, perhaps, inconvenient to read. But in fact the given sequence is still far from being complete. It is construed on the basis of a rather superficial analysis of the sentence under consideration; it should at the same time have been construed on the basis of its emantic representation, since, as is emphasized above, such a sequence should carry in it all the information contained in the corresponding sentence. But for our purposes here the sequence above also suffices.

As becomes evident from (8a–8k), a sequence corresponding to a sentence should not be strictly linear, i.e. construed in such a way that every following message merely adds its 'piece' of information to the whole of the information supplied by previous messages. The above sequence starts with a message about the guide.

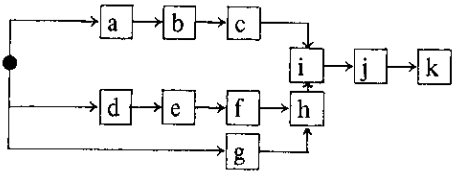

Fig. 1.

The following two messages, (8b) and (8c), indeed each add their pieces of information to the pieces communicated in the previous message. But in (8d) a new subject matter is introduced – the men – and during messages (8e–8f) information about these men is introduced; that which was told earlier about the guide does not play any role here. Then in (8g) yet another new 'object', the forest, is introduced. And it is only then, in messages (8h) and (8i), that the information about the three objects – the guide, the men and the forest – is united, and in the last two messages, (8j) and (8k), this common information is made more concrete.

As we see, the sequence of messages corresponding to a sentence is made up, as it were of certain 'lines', and it is only inside these lines that the 'flow of information' is linear. The mentioned lines may combine together and form new lines. Thus, the line beginning with message (8a) above may be called the 'line of the guide'; the line beginning with (8d), the 'line of the men'; the line beginning with (8g), the 'line of the forest'; and the line beginning with (8i), which unites all the previous lines, the 'line of the warning of the men who were making for the forest by the guide'. All of sequence (8a–8k) can be schematically presented by the 'flow-chart' shown in fig. 1 (the letters in the blocks refer to the corresponding messages in (8)).

2.4.

When considering the process of gradual gathering of information described above more closely, we may note an important characteristic of this process: new information introduced by a message always associates with the previous information in one definite aspect; it characterizes and concretizes this information from the point of view of its one particular dimension. This fact already reveals itself in the form of the messages used: the left side of a message presents, as a rule, a definite aspect or dimension of the object or activity to be characterized, whereas the right side of the corresponding message presents the information which, through the given dimension, should be added to the information about the corresponding object or activity. In particular this can be observed in the case of messages (8c), (8f) and (8h–8k). The described fact bears, first of all, upon the closer nature of operations that take place in the hearer's memory when new information is introduced.

Let us consider somewhat more closely what is hidden behind the characteristics described above of individual messages: what, by themselves, do the aforementioned 'dimensions' constitute, and what does the adding of new information, and modifying of old information through these dimensions, consist in? Here we are only able to touch upon the most general aspects of these problems, of course.

The task of every single message, as we know, is to represent one certain information processing operation. In what, in general, do such operations consist, and how do they proceed? In order to answer these questions let us analyze messages that we so far have used in an informal manner.

In these messages the left part typically begins with a pronominal expressions (*the one, who; what,* etc.). But these pronouns always represent the certain implicit semantic categories which generally are not hard to make explicit. When we replace pronominal expressions with corresponding semantic categories we discover an important fact about the structure of elementary messages under consideration: the left part and the right part of a message (let us call them, for simplicity's sake, merely subject and predicate parts of a message) are both dominated by one and the same semantic category. So, for instance, message (8c) *What the guide did was that he warned someone of something* can be more explicitly represented in the following form (the semantic categories we introduce are printed in capital letters).

The ACTION taken by the guide consisted in warning someone of something. But the category ACTION clearly presents here a logical generic concept of the concept *warning.* Therefore, we can represent the given message in a still more explicit form: *the ACTIVITY of the guide was the ACTIVITY of warning someone of something.*

In the same way message (8f) can be represented as *the ACTIVITY of the men was the ACTIVITY of making for some place*; and message (8i) as *the PERSONS whom the guide warned were the ADULT MALE PERSONS who were making for the forest.*

Thus we can say that elementary messages represent certain operations which are performed in the framework of definite semantic categories which function as dominating (generic) categories for both the subject and the predicate parts of the corresponding messages. [1] What do these semantic categories constitute and what function they have to fulfil in messages?

We have pointed out above that new information can be added to the old only through certain 'dimensions' which in some way or other are determined by the contents of the old information. Now we can say that the semantic categories under discussion represent (in the subject parts of corresponding messages) only the dimensions through which the information of subjects is concretized. For instance, we have represented the subject part of message (8i) as *the PERSONS whom the*

[1] The special role of generic concepts in joining together new and old information has already been emphasized by N.V. Moroz, who has discussed the given fact in analyzing the cognitive nature of judgements (Moroz 1961; see also Piscov 1973).

guide warned. The function of the expression *the PERSONS whom* is there to bring out a definite aspect – dimension – in the meaning of *warning,* namely the aspect which should be concretized by the information contained in the predicate part of the message.

The concept PERSONS is the dominating category in the subject part of message (8i); this is also revealed by the form of the corresponding noun phrase: *the PERSONS whom the guide warned.* The same category also dominates the predicate part of the message, as we have shown, and thus the category PERSONS appears there to serve as the connecting link through which – by putting together the two occurrences of it – the operation of adding the new information to the old one is carried out.

The immediate result of the described operation consists in the concretization of the information dominated by the category PERSONS; it constitutes the structure which is dominated by the same category PERSONS but which, in addition to the information contained previously in the subject, now also contains the information contained previously in the predicate.

As should already be clear from this informal discussion, the result of an operation represented by a message is no longer a 'message-type' structure (i.e., roughly speaking, it is not a sentence) but is, rather, of the same type as the structures which present subject (and predicate) parts of messages. The 'result' of message (8i), for instance, could be represented as *the ADULT MALE PERSONS whom the guide warned.*

As we have pointed out earlier, however, the funciton of the category PERSONS (in the given case) is to identify one certain dimension in the meaning of *warn.* Therefore, through the category PERSONS in message (8i) the content of *warn* is in fact concretized. The same holds in the case of other messages. The categories which immediately get concretized in messages (i.e. which dominate subject and predicate parts in them) identify certain dimensions of corresponding 'underlying concepts' (as *warning* in the case above), and through these dimensions the messages thus always concretize the contents of the corresponding underlying concepts. Such an underlying concept presents, as it were, a nucleus around which single messages are assembled in the corresponding sequences. They tie single messages together and through them information introduced in one message automatically is carried into and can be used in other subsequent messages. For instance, in message (8j) of sequence (8) the same activity of warning is characterized from another point of view – namely, that of which the guide warned the men; accordingly, we have here yet another semantic category which dominates the subject and predicate parts of it (e.g. *the EVENT of which the duide warned the men...*). But, as we see, the information introduced in the preceding message (8i – that the ones whom the guide warned were the men – is already included here into the known information. Further it has to be pointed out that the so-called dimensions are always connected with the corresponding underlying concepts through certain content-bearing relations. For instance, the category PERSONS in the message (8i) can be said to func-

tion as the GOAL (in the Fillmorean sense) of *warning*, so that the subject part if this message could be presented in a still more explicit form: *the PERSONS who were the GOAL of warning of the guide.* By relation of the same type *the guide* is also connected with *warning* (*the guide* functions, apparently, as the AGENT of warning). And so, when looking from the point of view of *warning*, we may see emerging (in the subject part of the message under consideration) a structure which in several respects reminds us the structures that are used in the conceptions of case grammar, except that in the position of the dominating unit we have here a semantic category which identifies one of the 'cases' of the corresponding underlying unit (or predicate).

The immediate result of an operation carried out in a message, as we have said, constitutes a structure which is dominated by the same semantic category as were the subject and the predicate of the message. But clearly such a structure cannot be taken as representing the general form of information structures stored in memory since it reflects the form of information specially chosen for the given message. In other messages the same material can be 'topicalized' in quite another way (i.e. some other aspect or dimension of it can be made the dominating category). Therefore we have to conclude that, beside the considered 'topicalized' form of representation used in concrete messages, a certain neutral, 'objective', form of representation is also needed, in which the material is arranged according to its inherent logical dependencies. In concrete messages one or another aspect of such a structure can be topicalized – made dominant – and through it certain new material can be added to the structure.

2.5.

Let us finally make some more general remarks about the relation between semantics and pragmatics.

The 'neutral' structures described in the preceding paragraph, as can easily be seen, are of much the same type as the structures used in semantics to represent semantic structures of sentences. They present the material which usually is called 'cognitive' meaning of sentences and which originally was considered the only type of meaning to be described in linguistic semantics. Later it was discovered that several facts connected with the functional organization of sentences – topicalization, sentence stress, word order, etc. – also have a definite effect upon the meaning of sentences and that was why more and more attention was paid to these phenomena, also in semantics. We want to claim now that the analysis of them is in fact the task of pragmatics: as we have tried to show in the foregoing discussion, the wholly consistent description of the functional aspect of language leads to such specific problems that it would be much more reasonable to consider them as forming the subject matter of a discipline of its own, of pragmatics.

The task of semantics is to describe the relation of linguistic expressions to the reality (or, correspondingly, to the reflection of this reality in the minds of people).

Because of this, the semantic descriptions of sentences should explicitly bring forth the objective content of sentences and show in what relation these contents stand to the situations, processes and events of the real world. The task of pragmatics is to describe how the objective semantic material contained in a sentence is carried by speakers into the minds of hearers in the process of communication. We can say, then, that such sentences as *The one who is cutting a tree is the man* and *What the man is cutting is a tree* have one and the same semantic structure, since the objective situation in the real world from which they depart is one and the same. The difference between these sentences is due to their different pragmatic structures: the difference lies in the ways in which the knowledge of the objective situation is carried to the hearer.

When we compare the delimitation of the areas of investigation between semantics and pragmatics outlined above with other functional theories of language, in particular with Halliday's theory of the function of language and of the corresponding components of the meaning of a sentence or clause (Halliday 1970a; 1970b), there is no difficulty in identifying the domain of semantics in our sense with the "experiential" or "ideational" component of meaning in Halliday's sense. Pragmatics in the sense described above, on the other hand, should include, apparently, the investigation of both "interpersonal" and "textual" components of meaning in Halliday's treatment.

In particular it should be pointed out that Halliday's treatment of the organization of sentences *as* messages, of their "information structures" as the realization of the "text-creating" function of language only – as opposed to its experiential (or ideational) and interpersonal functions – is too narrow and one-sided. As I have tried to show in the discussion above, the final aim of the organization of sentences as messages – which on the theoretical level is explicated in the form of sequences of elementary messages – lies in determining definite modifications in the corresponding areas of the receiver's memory store. In this sense the function of language that is realized in the described organization and properties of sentences could equally well be called "interpersonal". Together with Halliday's own "interpersonal" function they could be regarded as forming one general function of language which could be called interpersonal or – perhaps more explicitly – communicative function. There are, then two basic functions of language to be distinguished, according to our treatment: first, the function of representing our experience "of the world that is around us and inside us" (Halliday 1970a) and, secondly, the function of transmitting this experience to others and, in this way, of changing the others' experience in the way we want it to get changed. The first of these functions could be called the experiential (as Halliday does), or representational (as Bühler does) or, lastly, semantic function of language. It is the function in whose realization semantic relations between the expressions of language and the objects, events and processes of the real world play a central role and which, accordingly, forms the domain of semantics. The second of the basic functions of language described above could be called the interpersonal, or communicative or,

lastly, pragmatic function, since central in the realization of this function are the relations between the expressions of language (taken together with their semantic content, of course), on the one hand, and the speakers and the hearers, on the other hand; these relations form the domain of pragmatics.

Of course, Halliday is right in saying that we usually do not communicate by means of single sentences but by means of whole texts and that, accordingly, every sentence should have certain structural properties that serve the function of "creating texts". But these properties should not be identified, I think, with the organization of sentences as messages. And secondly, the text-creating function, as I see it, is of quite another nature than the two aforementioned functions of language and because of this it cannot be placed on the same level with the other two. It is only a "formal" function, so to speak, in the sense that it characterizes the form in which language is used rather than the content – the purpose – of this use, and thus it is clearly subordinate to the first two functions, the semantic and the pragmatic functions of language. (On this ground I also think that it is hardly right to equate the so-called functional sentence perspective, dealt with by the Chzechoslovak linguists, with the text-creating component of language; see Halliday 1970a).

Finally let us emphasize that the theory of pragmatics that we have outlined in this article is thought of as a purely linguistic theory, i.e. as a proper part of general linguistic theory. For this reason alone the concrete problems discussed here cannot coincide with those discussed by other authors who have a somewhat more general theory in view (see, e.g. Stalnaker 1970; Apostel 1972, among others). Of course, this is not the only source of differences; but if we take into account the youth of pragmatics as a separate discipline, the emergence of different views on the subject matter to be investigated and the results to be gained it should be considered a normal phenomenon.

On the other hand it should be pointed out that also when taken in the framework of the linguistic theory of pragmatics the problems considered above constitute only a part of what should be considered in such a theory. In particular, we have more thoroughly discussed only one use of language or, on other words, only one kind of linguistic act. This is the purely informative use which consists in the mere act of informing the hearer of how with this or that is the case, what is happening or has happened to someone and somewhere, etc. Of course, the full pragmatic treatment of language should include also the analysis of all other possible linguistic acts – of commands, questions, pleas, promises etc. We have confined ourselves to the aforementioned act only because of the conviction that this is in some way the most basic of all the linguistic acts: that the mechanisms which are at work here participate also in all other kind of linguistic acts; and that in this sense the processes described above, in spite of their limited character, constitute an elementary model of linguistic communication of a whole.

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Haldur Õim
1965, graduated from the Tartu State University (Estonian S.S.R.). 1970, presented his dissertation, 'Semantic structure of word groups connected with the category of person' (in Estonian). Since 1970, working as a chief researcher, Language Information Processing Laboratory, Tartu State University. Main research areas: the role of language in social interaction and the formal description of the corresponding interaction processes; the relation of language to human nonlinguistic knowledge; constructing computer models of language understanding.
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