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GOVERNMENT STRUCTURE TYPES OF THE VERBS OF SAYING AND ACTION SITUATIONS

1. The following analysis represents a part of a more extensive work treating the government structure types of Estonian simple verbs. The government structure type joins all the government structures which are possible in the case of a certain fixed meaning of a certain verb into one unity. To consider all secondary classes (the element forming the subject included) that can occur with the verb and the possibility and/or the form of occurrence of which are fully dependent on the given verb, on its meaning, as the elements of the government structure. These secondary classes may be either obligatory or optional (the latter will be given in parentheses) members of the government structure type. For details about these classes and the ways in which they are presented in the description of the government structure type see Rätsep (1969).

An analysis of the government structure types of Estonian verbs reveals that a different government structure type corresponds to each different meaning of the verb. It becomes evident that even small modifications in the meaning of the verb are connected with a change in the government structure type. The above is also valid for the verbs of saying analyzed below.

The government structure types looked upon in such a way are surface structure phenomena. Their form depends on the structure of the respective language, its morphology. In Estonian certain groups of verbs may have rather complicated government structure types. Undoubtedly one reason lies in the fact that the morphology of the Estonian language is rather complicated and rich in elements (14 cases and parallel to them almost a hundred postpositions, some prepositions, five-six infinitives).

In the deep structure the base of the government structure types is formed by semantic structures and their generalizations, types of semantic structures. In the present paper, situation descriptions are used to present the qualities of such semantic structures. The Estonian verbs of saying and structure types corresponding to them constitute the concrete material.

2. If we consider common simple sentences concentrated around one verb, we can see that the base of each such sentence is formed by a certain situation which is in some way marked by the sentence and with respect to which the speaker presents his attitude. Usually the verb or its equivalent

expresses action (in the broad sense of the word) which organizes the situation. The situation elements participating in the action become evident as various secondary parts of a sentence in the surface structure.

As the situation forming the base for the sentence is characterized by a certain action (or more exactly action, state, situation, etc.) we may call these situations *action situations*. We make a distinction between action situations and *communicative situations*. A situation where the speaker uses a certain sentence is called a communicative situation. In the present paper some action situations are analyzed. Concerning communicative situations see Rätsep (1971).

These elements of the action situation that must or may be expressed as members of the government structure of the verb in the surface structure are called relevant elements of the action situation. In an action situation there may be one or more relevant elements. A corresponding action joins them all into one whole. Similar actions have similar action situations. A concrete sentence describes a situation in its concrete form. Proceeding from the government structure type we get an action situation in a general form. The number of general action situations is very big but it is still possible to join even them into groups where a certain general action situation prevails. The other action situations belonging here may be considered as variants of the general action situation.

Not every verb has its own specific action situation. Usually several verbs share the same action situation. In such a case their difference becomes evident in the surface structure only, if at all. Although in general relevant situation elements in the surface structure are marked by the secondary parts of a sentence belonging to the verb, some situation elements may in certain cases be expressed not only as independent units in the surface structure but also in the stem of the verb. We should mention that we consider a sentence acceptable if it can occur free of context. Context-restricted sentences will be omitted from the fixation of government rules, since quite different rules operate in their formation. For details about situation analysis see Rätsep (1970).

3. We consider speaking situations to be variants of informing situations. Besides speaking situations singing and several signalling situations belong here.

In a general informing situation we distinguish the following relevant elements:

INFORMING {INFORMER, RECEIVER, TEXT, INFORMATION, OBJECT, CODE, INSTRUMENT, LOCATION, STARTING POINT, DESTINATION}

Let us treat these situation elements in more detail. INFORMER is the person from whom the information proceeds, who informs. RECEIVER is the person to whom the information is directed. TEXT is the information itself, either in a concrete (e.g. *George informed (us) that his father had been ill. George announced: 'My father was ill'.*) or general form (e.g. *George informed the monitor about the data*). INFORMATION OBJECT is the object or phenomenon the information refers to. CODE is the system of signs (natural languages included) by which TEXT is rendered. INSTRUMENT – the instrument for the rendering of the text (voice, technical device, letter, etc.). LOCATION is the place where both INFORMER and RECEIVER are located (e.g. *George informed Peter about the letter only in Tallinn*). If there is a distance in space between INFORMER and RECEIVER the notion LOCATION is more general. STARTING POINT is the place where INFORMER is located and DESTINATION the place where RECEIVER is located.

Such general INFORMING is expressed in Estonian by the verb *teatama* 'inform'. The verb *teatama* has some other, narrower meanings in Estonian and therefore we have to number them. *teada andma* 'let know' has the same meaning and situation.

The elements of the informing situation in the case of these verbs are expressed in Estonian as follows:

INFORMER → N + nom.; RECEIVER → N + all.; TEXT → N + ngp.
~ KL = OK; INFORMATION OBJECT → N + el.; CODE → LI; INSTRUMENT → N + kom. ~ N + nom.; LOCATION → Loc; STARTING POINT → De; DESTINATION → Di.

Some notes on the symbols: N = (noun) substantive, nom. = nominative, all. = allative, ngp. = nominative ~ genitive ~ partitive (the choice of the case depends on other circumstances), el. = elative, kom. = comitative, LI = a local substitution class of forms marking the language, De = extra-local substitution class referring to the direction, Di = intra-local substitution class referring to the direction, KL = subordinate clause, OK = direct speech.

Usually N + nom. denoting INFORMER is the subject in the surface structure but a form designating INSTRUMENT may also function as such in which case it likewise stands in the nominative (N + nom.).

If we take into account the obligatoriness – optionality of the elements of the government structure type and their mutual limitations, the government structure type of the verb *teatama* I in Estonian is as follows:

$N' + \text{nom. } V\{N^2 + \text{ngp.} \sim N^3 + \text{el.} \sim \text{KL} = \text{OK}\} (N^4 + \text{all.})$
 $(N^5 + \text{kom.}) (\text{Loc}) (\text{De}) (\text{Di}) (\text{LI})$

$N^5 + \text{nom. } V + 3.p. \{N^2 + \text{ngp.} \sim N^3 + \text{el.} \sim \text{KL} = \text{OK}\}$
 $(N^4 + \text{all.})(\text{Loc})(\text{De})(\text{Di})(\text{Li})$

As can be seen the surface structure manifestations of TEXT and INFORMATION OBJECT in Estonian are in the relation of substitution. In the case of the given verb one of them must be represented but together they cannot be represented in the same sentence. 3.p. after the symbol of the verb *V* in the second line refers to the fact that the verb may be in the third person only. Some examples of this government structure type follow.

Isa teatas oma telefoninumbri. 'Father gave (us) his telephone number.'

Isa teatas oma saabumisest. 'Father informed (us) about his arrival.'

Isa teatas, et ta tuleb esmaspäeval. 'Father informed (us) that he would come on Monday.'

Isa teatas: 'Tulen esmaspäeval.' 'Father announced: 'I shall come on Monday'.'

Isa teatas pojale oma telefoninumbri. 'Father gave his telephone number to (his) son.'

Isa teatas telegrammiga oma telefoninumbri. 'Father reported his telephone number in a telegram.'

Isa teatas pojale Tallinnas oma telefoninumbri. 'Father gave his telephone number to (his) son in Tallinn.'

Isa teatas Tallinnast pojale oma telefoninumbri. 'Father reported his telephone number to (his) son from Tallinn.'

Isa teatas Tartusse oma telefoninumbri. 'Father reported his telephone number to Tartu.'

Isa teatas oma saabumisest eesti keeles. 'Father informed (us) about his arrival in Estonian.'

Telegramm teatas isa telefoninumbri. 'The telegram reported father's telephone number,' etc.

4. As we have already mentioned, speaking situations where the action is expressed by means of the so-called verbs of saying form a kind of informing situation. All the verbs denoting the human activity of speaking in its various

aspects are regarded as verbs of saying. The Latin term *verba dicendi* has also been used to refer to these verbs in grammar-books. A whole doctoral dissertation has been dedicated to a comparative semantic analysis of the verbs of saying in the Balto-Finnic languages (Siro, 1949).

We shall now consider some special cases of speaking situations and their representations in the surface structure of Estonian.

The verbs of saying and the situations corresponding to them may be divided into two groups: primary verbs of saying and speaking situations and secondary verbs of saying and speaking situations.

It is speaking (or saying) as informing that is predominant in the meaning of the primary verbs of saying and the corresponding situations. This can be seen, for instance, in the following Estonian sentences:

Peeter kõneles Jürile oma uuest plaanist. 'Peter spoke about his new plan to George.'

Jüri jutustas Peetrile oma reisist. 'George told Peter about his trip.'

Peeter ütles Jürile, et ta läheb koju. 'Peter told George that he would go home.'

Jüri ei lausunud Peetrile ühtki sõna. 'George did not say a single word to Peter.'

Secondary verbs of saying denote actions which are carried out by means of speaking but where the speaking is not primary. The aim of speaking, that of the speaker himself, is primary. This can be seen in the following Estonian sentences, e.g.:

Peeter noomis Jürit hilinemise pärast. 'Peter rebuked George for his being late.'

Jüri kaebas Peetrile oma õnnetust. 'George complained about his misfortune to Peter.'

Peeter riidles Jüriga koera pärast. 'Peter scolded George because of the dog.'

Jüri kiitis Peetrile oma uut koera. 'George praised his new dog to Peter.'

In the present article we can only treat primary verbs of saying in more detail.

5.0. The situation defined by the following elements forms the base for the most common informing by speech:

SPEAKING {SPEAKER (= INFORMER), LISTENER (= RECEIVER), TEXT, OBJECT OF SPEAKING (= INFORMATION OBJECT), LANGUAGE (= CODE), INSTRUMENT, LOCATION, STARTING POINT, DESTINATION, HINDRANCE}

The brackets contain the corresponding elements in the general informing situation. One element, HINDRANCE, has been added. It points to the obstacle in the way of speech through or over which speaking occurs. It is absent from the general informing situation. This most common speaking situation is represented in the surface structure of Estonian by means of the following elements:

SPEAKER - N + nom.; LISTENER - N + all.; TEXT - N + ngp. ~ KL = OK; OBJECT OF SPEAKING - N + el. ~ N + gen. kohta; LANGUAGE - LI; INSTRUMENT - N + ad. ~ N + kom. ~ N + nom.; LOCATION - Loc; STARTING POINT - De; DESTINATION - Di; HINDRANCE - Dt₂.

Some explanations of the new symbols: N + gen. kohta - (noun) substantive in the genitive with the postposition *kohta*; ad. - adessive; Dt₂ - translocational substitution class whose members refer to the object through or over which a certain action occurs.

Several government structure types, the differences between which are mainly expressed in the obligatoriness - optionality and mutual conditionality of the elements, are based on this speaking situation in Estonian.

5.1.

$$\begin{aligned} N' + \text{nom. } V(\{ \{ N^2 + \text{ngp.} \sim \text{KL} = \text{OK} \vee N^3 + \text{el.} \} \\ = \{ \{ N^2 + \text{ngp.} \sim \text{KL} = \text{OK} \} (N^3 + \text{gen. kohta}) \\ (N^4 + \text{all.}) (\text{De}) (N^5 + \text{ad.} \sim N^6 + \text{kom.}) (\text{Loc}) \\ (\text{Di}) (\text{Dt}_2) (\text{LI}) \end{aligned}$$

$$\begin{aligned} N^{5 \sim 6} + \text{nom. } V + 3.p.(\{ \{ N^2 + \text{ngp.} \sim \text{KL} = \text{OK} \vee N^3 + \text{el.} \} \\ = \{ \{ N^2 + \text{ngp.} \sim \text{KL} = \text{OK} \} (N^3 + \text{gen. kohta}) \} \\ (N^4 + \text{all.}) (\text{De}) (\text{Loc}) (\text{Di}) (\text{Dt}_2) (\text{LI}) \end{aligned}$$

Such a government structure type is characteristic first and foremost of the verbs *kõnelema* 3 ('speak, tell') and *rääkima* 3 ('speak, tell'). Examples:

- (1) *Sepp kõneles.* 'The smith was speaking.'
- (2) *Sepp kõneles pika loo.* 'The smith told a long story.'
- (3) *Sepp kõneles oma lapsepõlvest.* 'The smith spoke about his childhood.'
- (4) *Sepp kõneles pojapojale oma lapsepõlve kohta pika loo.* 'The smith told a long story about his childhood to his grandson.'
- (5) *Sepp kõneles aias.* 'The smith was speaking in the garden.'
- (6) *Sepp kõneles voodist.* 'The smith was speaking from (his) bed.'
- (7) *Sepp kõneles poisile kõrva sisse.* 'The smith was speaking into the boy's ear.'
- (8) *Sepp kõneles eesti keeles.* 'The smith was speaking in Estonian.'
- (9) *Sepp kõneles tasase häälega.* 'The smith was speaking in a low voice.'
- (10) *Tasane hääl kõneles eesti keeles.* 'A low voice was speaking in Estonian.'
- (11) *Tasane hääl kõneles ukse tagant.* 'A low voice was speaking from behind the door.'

Kõnelema ja *rääkima* are dialectal variants in literary Estonian.

Some explanatory notes on the above statements. The double representation of OBJECT OF SPEAKING *N + el.* and *N + gen. kohta* deserves special mention here. There are differences in the possibilities of occurrence of these two elements. Namely *N + gen. kohta* can occur only when an element denoting TEXT is present in the sentence, while *N + el.* may occur even when the latter, i.e. TEXT is absent. Cf. sentences (3) and (4). **Sepp kõneles oma lapsepõlve kohta.* 'The smith was speaking about his childhood' is not acceptable.

Differences in the possibilities of occurrence of the elements *N + ad.* and *N + kom.* denoting INSTRUMENT are due to the contents of the members of class *N*. In the case of some (noun) substantives these elements are equivalent (*Ta rääkis valjul häälel = Ta rääkis valju häälega.* 'He was speaking in a loud voice.'). In some other cases only *N + kom.* is possible (*Ta kõneles kõlava baritoniga.* 'He was speaking in a resonant baritone.'). When the element denoting INSTRUMENT occupies the place of the subject in the sentence, it occurs in the form *N + nom.* Cf. sentences (10) and (11).

The possibilities of occurrence of *N + all.* representing LISTENER are more limited than those of other elements of this type. *N + all.* can occur only when either TEXT or OBJECT OF SPEAKING is realized. In the opposite case the sentence is not acceptable in the context-free form. Cf. sentence (4) and

**Sepp kõneles pojapojale*. 'The smith was speaking to his grandson' which is not acceptable.

Here we should mention that the substantive in the allative case which denotes the owner of some inalienable property in the sentence and is equivalent to the substantive in the genitive, has usually been omitted from the government structures. For example, *Sepp kõneles poisile kõrva sisse* 'The smith was speaking into the boy's ear' which is equivalent to sentence (7).

In the case of more complicated government structure types that have more elements we can observe a general phenomenon in Estonian. Namely, the more different government structure elements we include in one sentence, the more difficult it is to form an acceptable sentence. The word order becomes more and more fixed. In the end the sentence loses its clarity, its links become loose and the sentence unacceptable. It is obvious that in cases of the verbs of saying, the so-called maximum sentences, i.e. sentences where all situation elements are simultaneously realized, are not acceptable either.

Let us compare the acceptability of the following sentences:

- (12) *Sepp kõneles aias pojapojale oma lapsepõlvest pika loo*. 'In the garden the smith told (his) grandson a long story about his childhood.'
- (13) *Sepp kõneles aias tugitoolist pojapojale oma lapsepõlvest pika loo*. 'The smith told (his) grandson a long story about his childhood from the armchair in the garden.'
- (14) *Sepp kõneles aias tugitoolist pojapojale kõrva sisse oma lapsepõlvest pika loo*. 'The smith told (his) grandson, into the ear, a long story about his childhood from the armchair in the garden.'
- (15) *Sepp kõneles aias tugitoolist pojapojale kõrva sisse eesti keeles oma lapsepõlvest pika loo*. 'The smith told (his) grandson, into the ear, a long story in Estonian about his childhood from the armchair in the garden.'
- (16) *Sepp kõneles aias tugitoolist pojapojale läbi suud katva marli kõrva sisse eesti keeles oma lapsepõlvest pika loo*. 'The smith told (his) grandson, through the gauze covering his mouth (and) into the ear, a long story in Estonian about his childhood from the armchair in the garden.'

It seems that if more than six different situation elements are represented in a sentence, it loses the compactness of links, becomes obscure and unacceptable (cf. sentences (14), (15), (16)). The transition to unacceptability seems to be gradual.

5.2.

$\left\{ \begin{array}{l} N' + \text{nom. V } N^2 + \text{ngp.}(N^3 + \text{el.} = N^3 \\ + \text{gen. kohta})(N^4 + \text{ad.} \sim N^5 + \text{kom.}) \\ N' + \text{nom. V}\{\text{KL} = \text{OK}\}(N^3 + \text{gen.} \\ \text{kohta})(N^4 + \text{ad.} \sim N^5 + \text{kom.}) \\ N^{4\sim 5} + \text{nom. V} + 3.\text{p. } N^2 + \text{ngp.}(N^3 \\ + \text{el.} = N^3 + \text{gen. kohta}) \\ N^{4\sim 5} + \text{nom. V} + 3.\text{p.}\{\text{KL} = \text{OK}\} \\ (N^3 + \text{gen. kohta}) \end{array} \right\}$	$\left. \begin{array}{l} \\ \\ \\ \\ \end{array} \right\} \begin{array}{l} (N^6 + \text{all.})(\text{Loc})(\text{De}) \\ (\text{Di})(\text{Dt}_2)(\text{Ll}) \end{array}$
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The verbs *ütleva* I 'say' and *lausuma* I 'utter' have such a government structure type. The base for the type is formed by the same situation which was present in the previous type. Differences occur in the obligatoriness and limitations of the elements. Examples:

- (1) *Sepp ütles ainult ühe sõna*. 'The smith said only one word.'
- (2) *Sepp ütles oma lapsepõlvest ainult ühe lause*. 'The smith said only one sentence about his childhood.'
- (3) *Sepp ütles oma lapsepõlve kohta ainult ühe lause*. 'The smith said only one sentence about his childhood.'
- (4) *Sepp ütles pojapojale ainult ühe sõna*. 'The smith said only one word to (his) grandson.'
- (5) *Sepp ütles valjul häälel ainult ühe sõna*. 'In a loud voice the smith said only one word.'
- (6) *Sepp ütles aias ainult ühe sõna*. 'The smith said only one word in the garden.'
- (7) *Sepp ütles toa nurgast ainult ühe sõna*. 'The smith said only one word from the corner of the room.'
- (8) *Sepp ütles pojapojale kõrva sisse ainult ühe sõna*. 'The smith said only one word into his grandson's ear.'
- (9) *Sepp ütles läbi trellide ainult ühe sõna*. 'The smith said only one word through the bars.'
- (10) *Sepp ütles eesti keeles ainult ühe sõna*. 'The smith said only one word in Estonian.'
- (11) *Sepp ütles asja kohta, et ta ei tea midagi*. 'The smith said he knew nothing about the matter.'
- (12) *"Ma ei tea midagi," ütles sepp selle asja kohta*. '“I know nothing,” the smith said about this matter.'

As compared with the action denoted by the previous verbs, we can see that the verbs *üttelema* I 'say' and *lausuma* I 'utter' do not express continuous actions as is the case with the verbs *kõnelema* 3 'speak, tell' and *rääkima* 3 'speak, tell.' Therefore TEXT of the first mentioned verbs cannot be a long unit but must be limited, short one (word, sentence), if it is represented at all. It is impossible to say: **Sepp ütles pojapojale pika loo oma lapsepõlvest*. 'The smith told a long story about his childhood to (his) grandson.'

The main difference between this and the previous government structure type arises here: the representation of the situation element TEXT in a context-free sentence is obligatory. Thus *N + ngp.*, *KL* or *OK* must be represented in the sentence. The sentence **Sepp ütles* 'The smith said' is not acceptable.

In addition there are differences in the representation of OBJECT OF SPEAKING: element *N + el.* cannot occur when TEXT is denoted by the elements *KL* or *OK*. Consequently, the sentence* "*Ma ei tea midagi*," ütles sepp sellest asjast. 'I know nothing,' the smith said on this matter.' is not acceptable in Estonian and the other representative of OBJECT OF SPEAKING in the surface structure, element *N + gen. kohta* must be used in the given sentence.

The verbs *üttelema* I 'say' and *lausuma* I are full synonyms. What is valid for *üttelema* I is also valid for *lausuma* I.

5.3.

$N' + \text{nom. } V\{KL = OK\} (N^2 + \text{all.}) (N^3 + \text{ad.} \sim N^4 + \text{kom.})$
(Loc) (De) (Di) (Dt₂) (Li)

$N^{3 \sim 4} + \text{nom. } V + 3.p.\{KL = OK\} (N^2 + \text{all.}) (\text{Loc}) (\text{De})$
(Di) (Dt₂) (Li)

The verb *sõnana* 'say' has such a government structure type. It is conspicuous that the element OBJECT OF SPEAKING is absent in the situation forming the base, i.e. we regard as unacceptable such sentences as:

**Peeter sõnas uksehoidjale võtme kohta*: "Ma ei tea sellest midagi." 'Peter said to the doorkeeper about the key, "I know nothing about it."' "

**Peeter sõnas uksehoidjale võtmest*: "Ma ei tea sellest midagi." 'Peter said to the doorkeeper about the key, "I know nothing about it."' "

On the other hand, the following sentence is quite acceptable:

Peeter sõnas uksehoidjale: "Ma ei tea sellest midagi." 'Peter said to the doorkeeper, "I know nothing about it."' "

Unlike the previous elements, TEXT is realized in the surface structure here. Only the subordinate clause (*KL*) or direct speech (*OK*) are possible, while the substantive in the nominative, genitive or partitive (*N + ngp.*) cannot occur. Therefore the following sentence is not acceptable:

**Peeter sõnas uksehoidjale ainult ühe sõna*. 'Peter said only one word to the doorkeeper.'

5.4.

$N' + \text{nom. } V(\{N^2 + \text{ngp.} \sim OK \vee N + \text{el.}\} = \{N^2 + \text{ngp.} \sim OK(N^3 + \text{gen. kohta})\} \vee N^4 + \text{ad.} \sim N^5 + \text{kom.} \vee \text{Loc} \vee \text{Li}) (N^6 + \text{all.}) (\text{De}) (\text{Di}) (\text{Dt}_2))$

$N' + \text{nom. } V(\{N^4 + \text{ad.} \sim N^5 + \text{kom.} \vee \text{Loc} \vee \text{Li} \vee KL\} (N^6 + \text{all.}) (\text{De}) (\text{Di}) (\text{Dt}_2))$

$N^{4 \sim 5} + \text{nom. } V + 3.p.(\{N^2 + \text{ngp.} \sim OK \vee N^3 + \text{el.}\} = \{N^3 + \text{ngp.} \sim OK(N^3 + \text{gen. kohta})\} \vee \text{Loc} \vee \text{Li}) (N^6 + \text{all.}) (\text{De}) (\text{Di}) (\text{Dt}_2))$

$N^{4 \sim 5} + \text{nom. } V + 3.p.(\{\text{Loc} \vee \text{Li} \vee KL\} (N^6 + \text{all.}) (\text{De}) (\text{Di}) (\text{Dt}_2))$

The verbs *jutustama* 2 'tell', *pajatama* 1 'tell' have such a rather complicated government structure type. The same action situation as in the case of the verb *kõnelema* 3 'speak' (5.1) forms the base here. Even the correspondences of the situation elements in the surface structure are exactly the same. Differences occur in the mutual limitations of the surface structure elements. These verbs denote the oral rendering of longer information. Examples:

Sepp jutustas. 'The smith was telling (a story).'

Sepp jutustas pika loo. 'The smith told a long story.'

Sepp jutustas oma lapsepõlvest. 'The smith was telling about (his) childhood.'

Sepp jutustas oma lapsepõlve kohta pika loo. 'The smith told a long story about his childhood.'

Sepp jutustas aias. 'The smith was telling (a story) in the garden.'

Sepp jutustas eesti keeles. 'The smith was telling (a story) in Estonian.'

Sepp jutustas tasase häälega. 'The smith was telling (a story) in a low voice.'

Sepp jutustas pojapojale pika loo. 'The smith told a long story to (his) grandson.'

Sepp jutustas tugitoolist pojapojale muinasjutu. 'The smith told a fairy-tale to (his) grandson from the armchair.'

Sepp jutustas pojapojale kõrva sisse toreda loo. 'The smith told a nice story to (his) grandson into the ear.'

Sepp jutustas sõpradele läbi võre, kuidas tal läks. 'The smith told (his) friends through the bars (about) how he had fared.'

Tasane hää! jutustas, kuidas madrus päästeti. 'A low voice told (about) how the sailor had been saved.'

The main specific feature of the government structures of these verbs is the fact that the elements of this government structure type fall into two groups: the elements belonging to one group may alone, together with the verb, form a complete context-free sentence; those belonging to the other group always require the presence of some of the elements of the first group. Thus the sentences **Sepp jutustas tugitoolist* 'The smith was telling (a story) from the armchair.' **Sepp jutustas kõrva sisse.* 'The smith was telling (a story) into the ear.' **Sepp jutustas läbi võre.* 'The smith was telling (a story) through the bars.' are unacceptable.

Moreover, OBJECT OF SPEAKING cannot be represented as a separate surface structure element in the sentence when TEXT is represented by a subordinate clause (KL). This limitation refers to the fact that OBJECT OF SPEAKING and TEXT are as if joined together. Therefore the sentences **Sepp jutustas lapsepõlvest, kuidas ta kalu püüdis.* 'The smith told (us) how he had gone fishing in his childhood.' *Sepp jutustas lapsepõlve kohta, kuidas ta kalu püüdis.* 'The smith told (us) how he had gone fishing in his childhood.' are not acceptable.

6. So far we have treated speaking situation types where the information has been conveyed in one direction: the speaker imparts some information to the listener. But speaking, rendering the information, may also occur in two directions. We would call such a speaking situation TALKING. In this situation some situation elements have been altered. If we consider the basic situation presented above, the following alternations take place. The elements SPEAKER-LISTENER 1 and SPEAKER-LISTENER 2 have been substituted for SPEAKER and LISTENER, i.e. there are two elements in the situation,

both in the functions of both INFORMER and RECEIVER. The reciprocity of the information is stressed by a separate RECIPROCAL ELEMENT. TEXT cannot occur in this situation as it requires the reference to the source. In the present situation there are two speakers-listeners and it is impossible to ascertain the author of the text. The elements STARTING POINT and DESTINATION are not possible in this situation, either as they denote the location of SPEAKER and LISTENER separately. On the other hand, the element LOCATION is present and refers to the common location of both SPEAKER-LISTENER. The situation elements are the following:

TALKING {SPEAKER-LISTENER 1, SPEAKER-LISTENER 2, OBJECT OF SPEAKING, RECIPROCAL ELEMENT, INSTRUMENT, LANGUAGE, LOCATION, HINDRANCE}

These situation elements are expressed in the surface structure of Estonian as follows:

SPEAKER-LISTENER 1 - N' + nom.; SPEAKER-LISTENER 2 - N² + kom. ~ N² + nom.; OBJECT OF SPEAKING - N³ + el. ~ N³ + gen. üle ~ [N³ + gen. ~ A + ad.] N⁴ + ad.; RECIPROCAL ELEMENT - substitution class R; INSTRUMENT - N⁵ + ad. ~ N⁶ + kom.; LANGUAGE - substitution class Ll; LOCATION - substitution class Loc; HINDRANCE - substitution class De₂.

The government structure type pointing to the limitations and relations of the surface structure is the following:

$$\left\{ \begin{array}{l} N' + \text{nom.} V N^2 + \text{kom.} \\ N' + \text{nom.} \text{ ja } N^2 + \text{nom.} V (R) \\ N + \text{nom.} + \text{pl.} V (R) \end{array} \right\} \left\{ \begin{array}{l} (N^3 + \text{el.} = N^3 + \text{gen. üle} \\ \sim [\{ N^3 + \text{gen.} \sim A + \text{ad.} \} \\ N^4 + \text{ad.}] (N^5 + \text{ad.} \sim N^6 \\ + \text{kom.}) (\text{Loc}) (\text{Dt}_2) (\text{Ll}) \end{array} \right.$$

This government structure type is characteristic of the reciprocal verbs *jutlema* 'talk', *kõnelema* 13 'speak', *rääkima* 13 'speak', *vestlema* 'talk'. Some explanations and examples of this type follow.

SPEAKER-LISTENER 1 and SPEAKER-LISTENER 2 may be represented in the surface structure of Estonian in three ways.

(a) SPEAKER-LISTENER 1 - N' + nom., SPEAKER-LISTENER 2 - N² + kom. In such a case one feels that the role of SPEAKER of the first element and the role of LISTENER of the second element are more active. For example, *Jaan kõneles Jüriga* 'John was speaking to George.' *Jaan vestles Jüriga* 'John was talking to George.'

(b) SPEAKER-LISTENER 1 - $N' + \text{nom.}$, SPEAKER-LISTENER 2 - $N^2 + \text{nom.}$, i.e. both substantives are in the nominative. In this case both sides are equally active in their roles of SPEAKER and LISTENER. For example, *Jaan ja Jüri kõnelesid*. 'John and George were speaking.' *Jaan ja Jüri vestlesid*. 'John and George were talking.'

(c) Both situation elements are joined into one plural element in the surface structure - $N + \text{nom.} + \text{pl.}$. Here one need not distinguish between the elements and we can speak of them in a general form as there is no need to differentiate their activity. For example, *Noormehed kõnelesid*. 'The young men were speaking.' *Noormehed vestlesid*. 'The young men were talking.'

In the last two cases the reciprocity may be stressed by means of words of pronominal character such as *üksteisega* 'with one another,' *teineteisega* 'with each other,' *omavahel* 'between themselves,' *isekeskis* 'among themselves,' which we have joined into the substitution class R. For example: *Jaan ja Jüri kõnelesid teineteisega*. 'John and George were speaking with each other.' *Jaan ja Jüri vestlesid omavahel*. 'John and George were talking between themselves.' *Jaan ja Jüri kõnelesid isekeskis*. 'John and George were talking among themselves.' *Noormehed kõnelesid üksteisega*. 'The young men were speaking with one another.' *Noormehed kõnelesid teineteisega*. 'The young men were talking with each other.' *Noormehed kõnelesid omavahel*. 'The young men were speaking between themselves.'

In literary Estonian there is a rule which says that *teineteisega* 'with each other' refers to only two SPEAKERS-LISTENERS, *üksteisega* 'with one another' more than two SPEAKERS-LISTENERS. In colloquial speech the rule is not always followed. The substitution class R cannot occur in case (a) as the reciprocity is not complete and equal here as was observable in the above example.

OBJECT OF SPEAKING in this type may occur in very many forms. Between the elements $N + \text{el.}$ and $N + \text{gen. üle}$ there are the relations of equality. Cf. *Jaan kõneles Jüriga lastekasvatamisest*. 'John was speaking to George on the education of children.' *Jaan kõneles Jüriga lastekasvatamise üle*. 'John was speaking to George about the education of children.'

The third complex representation of OBJECT OF SPEAKING presupposes the obligatory attribute $N + \text{gen.}$ or $A + \text{ad.}$ and is rather special, since the number of substantives belonging to N^4 is very limited. For example,

Jaan ja Jüri kõnelesid huvitaval teemal. 'John and George were speaking on an interesting subject.'

Noormehed vestlesid muusika teemadel. 'The young men were talking on the subject of music.'

7. There exists one more kind of reciprocal speaking where the emphasis is not so much on reciprocity as on the transmission of information for the purpose of achieving something. Let us compare the following sentences with the previous ones from this point of view.

Peeter kõneles direktoriga autobussi pärast. 'Peter was speaking to the director on account of the bus.'

Peeter kõneles direktoriga autobussi üle. 'Peter was speaking to the director about the bus.'

Tuttav hääl kõneles esikus direktoriga autobussi pärast. 'A familiar voice was speaking to the director on account of the bus in the vestibule.'

Even here we have two SPEAKERS-LISTENERS, but one of them is the main SPEAKER, the active SPEAKER. Therefore it is impossible to stress the reciprocity of the action by a specific element in this situation. Otherwise the situation elements are the same as in the previous type.

As regards the representation of the situation elements in the surface structure and as compared with the previous type, the difference lies in the fact that SPEAKER-LISTENER 2 is expressed by $N + \text{nom.}$ only, i.e. possibilities (b) and (c) are excluded. OBJECT OF SPEAKING is rendered by the elements $N + \text{gen. pärast} \sim N + \text{gen. üle}$. The representation of INSTRUMENT may be the subject of the sentence. In the previous type it was impossible because of the action.

The government structure type occurring in the surface structure is as follows:

$$N' + \text{nom.} \quad V \quad N^2 + \text{kom.}(N^3 + \text{ad.} \sim N^4 + \text{kom.})(N^5 + \text{gen. pärast} = N^5 + \text{gen. üle})(\text{Loc})(\text{De})(\text{Dt}_2) \quad (\text{LI})$$

$$N^{3 \sim 4} + \text{nom.} \quad V + 3.p. \quad N^2 + \text{kom.}(N^5 + \text{gen. pärast} = N^5 + \text{gen. üle})(\text{Loc})(\text{De})(\text{Dt}_2) \quad (\text{LI})$$

The verbs *kõnelema* 14 'speak, tell' and *rääkima* 14 'speak, tell.'

8. Addressing somebody with a speech represents a special situation. In this situation the elements DESTINATION and HINDRANCE are absent. The situation elements are the following:

{SPEAKER, LISTENER, TEXT, OBJECT OF SPEAKING, LANGUAGE, LOCATION, STARTING POINT}

Several government structure types in the surface structure correspond to this situation.

8.1.

$N' + \text{nom. } V N^2 + \text{ngp.} \{N^3 + \text{el.} = N^3 \text{gen. kohta}\} (N^4 + \text{all.} = N^4 + \text{gen. ees}) (N^5 + \text{ad.} \sim N^6 + \text{kom.})$
(Loc) (De) (Di) (Dt₂) (Li)

$N^5 \sim 6 + \text{nom. } V + 3.p. N^2 + \text{ngp.} \{N^3 + \text{el.} = N^3 + \text{gen. kohta}\} (N^4 + \text{all.} = N^4 + \text{gen. ees})$ (Loc)
(De) (Di) (Dt₂) (Li)

As can be seen, two equivalent elements $N + \text{all.}$, $N + \text{gen. ees}$ in the surface structure correspond to LISTENER in this type.

Such a structure is characteristic of the verb *pidama* 2 'make, have.' Examples:

Professor peab loengu. 'The professor will give a lecture.'

Professor peab üliõpilastele loengu. 'The professor will give a lecture for the students.'

Professor peab kõne poliitikast. 'The professor will make a speech on politics.'

Professor peab üliõpilaste ees kõne. 'The professor will make a speech before the students.'

Professor peab ettekande oma avastuse kohta. 'The professor will make a report on his discovery.'

Professor peab aulas ettekande. 'The professor will make a report in the assembly hall.'

Pastor peab kantslist eesti keeles jutluse. 'The pastor will give a sermon in Estonian from the pulpit.'

In the present type we have considered the surface structure equivalents of OBJECT OF SPEAKING the secondary part of the sentence belonging to the verb and not that of substantive denoting TEXT. The verb itself is a little different in this type as it does not refer (i.e. its stem) to the speaking action anyway. It acquires its full contents only in connection with the verb expressing TEXT. Therefore the presence of TEXT in the sentence is obligatory.

8.2.

$N + \text{nom. } V (N + \text{all.} = N + \text{gen. ees}) (N + \text{kom.} (N + \text{el.}))$
(Loc) (De) (Li)

This government type is characteristic of the verb *esinema* 2 'appear, address, make.' Examples:

Professor esines. 'The professor appeared (before the audience).'

Professor esines üliõpilastele. 'The professor addressed the students.'

Professor esines kõnega. 'The professor made a speech.'

Professor esines üliõpilastele kõnega. 'The professor made a speech to the students.'

Professor esines oma avastusest loenguga. 'The professor lectured on his discovery.'

Professor esines aulas. 'The professor appeared (before the audience) in the assembly hall.'

Professor esines kõnetoolist. 'The professor addressed (the audience) from the rostrum.'

The characteristic feature of this type is that the verb *esinema* is sufficiently independent to be able to form a sentence without the representation of TEXT. TEXT is represented by the substantive in the comitative ($N + \text{kom.}$) and OBJECT OF SPEAKING by the surface structure element $N + \text{el.}$ which can occur only in a case where the representative of TEXT is present in the sentence.

8.3.

$N + \text{nom. } V (N + \text{el.}) (N + \text{all.}) (\text{Loc}) (\text{De}) (\text{Li})$

The verbs of this government structure type are *kõnelema* 10 'speak, tell' and *rääkima* 10 'speak, tell.' For example,

Prorektor kõneleb. 'The assistant rector is speaking.'

Prorektor kõneleb ülikoolist. 'The assistant rector is speaking about the university.'

Prorektor kõneleb külalistele. 'The assistant rector is speaking to the guests.'

Prorektor kõneleb aulas. 'The assistant rector is speaking in the assembly hall.'

Prorektor kõneleb kõnetoolist. 'The assistant rector is speaking from the rostrum.'

Prorektor kõneleb inglise keeles. 'The assistant rector is speaking in English.'

Prorektor kõneleb külalistele aulas ülikoolist. 'The assistant rector is speaking about the university to the guests in the assembly hall.'

At first it may seem that in the case of the given verb TEXT is absent from the situation elements. In reality this is not so. Even in the present situation TEXT is one situation element, but this element is represented differently here. We come across another possibility of representing the situation element in the surface structure: embedding into the verb stem, i.e. the equivalents of the situation element TEXT in the surface structure are the verb stems *kõne-*, *rääki-*. In Estonian such embedding of situation elements into the verb is a rather common phenomenon.

In this type OBJECT OF SPEAKING is rendered by the element *N + el.* only. *N + gen. kohta* as the representation of OBJECT OF SPEAKING cannot occur as it usually presupposes the presence of TEXT as a separate secondary part of a sentence. Therefore the sentence **Prorektor kõneles külalistele ülikooli kohta* 'The assistant rector was speaking about the university to the guests' is not acceptable.

8.4. The compound verb *üles astuma* 2 'appear' denoting 'making a speech' presupposes a still more limited number of situation elements. Even STARTING POINT is absent here, in addition to the previous ones. The government structure type is the following:

$N + \text{nom. V} [N + \text{kom. (N + el.)} (N + \text{gen. ees}) (\text{Loc}) (\text{LI})]$

According to this structure type, OBJECT OF SPEAKING is expressed in the surface structure only as an attribute of *N + kom.* denoting TEXT. LISTENER is represented by the element *N + gen. ees*. For example,

Prorektor astus üliõpilaste ees üles kõnega õppimise viisidest.
'The assistant rector addressed the students (with a speech) on the ways of studying.'

9. In conclusion some words on the simplest verbs of saying. Undoubtedly the situation which refers to the presence of speaking ability only is the

simplest speaking situation. In comparison with the previous ones this is a rather abstract situation. Here we have only two situation elements: OWNER and SPEECH. These elements are represented in the surface structure so that OWNER - *N + nom.*, while SPEECH is embedded into the verb stem. So we get the government structure type

$N + \text{nom. V},$

which in the case of the given situation is characteristic of the verbs *kõnelema* 1 'speak, tell,' *rääkima* 1 'speak, tell.' For example,

Peetri poeg kõneleb juba. 'Peter's son can talk already.'

10. A separate situation also denotes the speaking of a certain language, the ability to do so. The government structure type is

$N + \text{nom. V Lp},$

where *N + nom.* denotes SPEAKER and *Lp* is a substitution class of partitive character and denotes LANGUAGE. For example,

Professor kõneleb mustlaskeelt. 'The professor can speak the Gypsy language.'

Professor valdab jüdišit. 'The professor can speak Yiddish.'

Professor rääkis sanskritti. 'The professor could speak Sanskrit.'

Such a government structure type is characteristic of the verbs *kõnelema* 7 'speak, tell,' *rääkima* 7 'speak, tell,' *valdama* 3 'master, be able to (speak).'

11. A situation where two men are speaking in a certain language has yet to be added. Here the situation is more concrete and its elements are

{SPEAKER-LISTENER 1, SPEAKER-LISTENER 2, LANGUAGE, RECIPROCAL ELEMENT, LOCATION}

As can be seen, TEXT and OBJECT OF SPEAKING are absent in the situation because the whole action is concentrated on the element LANGUAGE. The government structure type is accordingly

$\left\{ \begin{array}{l} N' + \text{nom. V } N^2 + \text{kom.} \\ N' + \text{nom. ja } N^2 + \text{nom. V (R)} \\ N + \text{nom. + pl. V (R)} \end{array} \right\} Lp (\text{Loc})$

This type is characteristic of the verbs *kõnelema* 12 'speak, tell' and *rääkima* 12 'speak, tell.' For example,

Professor rääkis külalisega saksa keelt. 'The professor spoke German with the guest.'

Professor ja külaline rääkisid saksa keelt. 'The professor and the guest spoke German.'

Külalised rääkisid omavahel saksa keelt. 'The guests were speaking German among themselves.'

If we compare the present situation with the TALKING situation presented under point 6, we can detect one difference in the representation of LANGUAGE: here LANGUAGE is expressed partitively in the surface structure, while in the TALKING situation it was expressed locally, or more exactly inessively. Let us compare the following TALKING sentences with the previous ones:

Professor rääkis külalisega saksa keeles. 'The professor spoke (in) German with the guests.'

Professor ja külaline rääkisid saksa keeles. 'The professor and the guest spoke (in) German.'

Külalised rääkisid omavahel saksa keeles. 'The guests spoke (in) German among themselves.'

12. The verbs of saying analyzed above present primary speaking situations in Estonian. The verbs of saying of onomatopoeic character and secondary verbs of saying have been omitted from the present paper. The government structure types of the verbs of saying are more complicated than those of any other kind of verb and it is probably for this reason that elucidation of the corresponding action situations is especially necessary.

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SOME PROBLEMS CONNECTED WITH THE TRANSLATION OF RELATIVE CLAUSES INTO PREDICATE CALCULUS

Traditionally the distinction between restrictive and non-restrictive relative clauses has been defined as follows: A restrictive relative clause restricts the extension of the concept, expressed by the NP, to which the restrictive relative clause is attached. A non-restrictive relative clause leaves the extension of the respective concept unmodified.

Within the framework of TG, relative clauses constitute one of the major problems. In most grammars it is assumed that restrictive relative clauses come from a sentence which is embedded in a noun-phrase. There exist two variants of this analysis: the Art-S-analysis and the NP-S-analysis. Both analyses lead to insurmountable difficulties. Non-restrictive relative clauses are usually derived from a conjunction of sentences. The sentence which yields the relative clause is attached to the highest S and inserted at the appropriate place by post-cyclical rule. The various approaches have been summarized in the UCLA grammar together with the arguments to support them. I therefore see no need to go through them again. Instead I want to propose my own attempt at a solution.¹

In this attempt the base component looks like a predicate calculus. It contains the usual inventory of logical connectives, predicates, individual variables and constants, as well as quantifiers; moreover there are formation rules, rules of derivation and axioms. It would of course also be possible to present such a logical analysis under the title of transformational analysis. Because what is a transformational analysis?

As Ch. Fillmore put it, 'the ordinary working grammarian is confused about what it takes for something to be a generative grammar'.² In this general confusion I could claim to be still a generative grammarian.

In a logical analysis a sentence like

(1) John knows the woman who slapped the chancellor.

¹ There is one approach in which both types of relative clauses are derived from a conjunction. cf. S. Annear Thompson, 'The Deep Structure of Relative Clauses', *Working Papers in Linguistics* No. 6, Sept. 70, Ohio State University, Columbus. More exactly, the author claims that at the level of deep structure, there is no significant difference between restrictive and non-restrictive clauses. For this author the difference between the two types is a function of the presuppositions which the speaker has about the hearer's knowledge.

² Ch. Fillmore, 'On Generativity', *Working Papers in Linguistics*, No. 6, September 1970, The Ohio State University, Columbus Ohio, pp. 1-20.