Tartu Riiklik Ülikool

Aastakoosolek
Annual Meeting

1972

Teesid
Abstracts

Tartu 1972
GENERATĪVSE GRAMMATIKA GRUPI
AASTAKOOSOLEK

27. XII 1972

ANNUAL MEETING OF THE RESEARCH GROUP
FOR GENERATIVE GRAMMAR

Teesid
Abstracts

Tartu 1972
In the following we shall examine such Estonian comparative sentences where different qualities of one and the same object are collated. Only an analytical way of comparison is possible here; thus, one cannot say:

(1) 'Ta on laisem kui andetu. 'He is lazier than giftless.'

The comparison is rendered through the adverbs rohkem, pigem, pigemini, enne, ennem, ennemi.

1. pigem(ini). Let us consider the sentence:

(2) Ta on pigem(ini) laisk kui andetu.

'He is rather lazy than giftless.'

In this sentence it is weighed which of the two possible qualities is more likely for the given object. Apparently the following interpretation is valid:

(3) See, et ta on laisk, on rohkem tõenäoline kui see, et ta on andetu.

'It is more likely that he is lazy than he is giftless.'

In order to present the interpretation (3) of sentence (2) as a structure in terms of predicates and arguments, we must introduce a two-place predicate, TÕENÄOLINE 'likely', one argument of which in the given case is the sentence stating that a certain quality belongs to the object, and the other argument is the quantitative index (q) of probability. The structure has the following shape:

(4) ROHKEM (q₁(TÕENÄOLINE (LAISK (TEMA))(q₁)))
    (q₂(TÕENÄOLINE (ANDETU(TEMA))(q₂)))

For the generation of the sentence, a lexical transformation is applied:

(5) ROHKEM + TÕENÄOLINE $$$\Rightarrow$$ pigem(ini)

2. enne(m(ini)). The sentence:
(6) Ta on ennemini laisk kui andetu.
offers nothing new, as it is a paraphrase of sentence (2).
For the generation of the sentence a lexical transformation
is applied:
(7) ROHKEM + TÕENÄOLINE \(\Rightarrow\) enne(m(ini)).

3. rohkem. The sentence:
(8) Ta on rohkem laisk kui andetu.
has at least one interpretation that makes it a para-
phrase of sentence (2), i.e. rohkem = pigem(ini), and the
lexical transformation:
(9) ROHKEM + TÕENÄOLINE \(\Rightarrow\) rohkem
is applied.

Obviously it is also possible to interpret sentence
(8) in the following way:
(10) Ta on laisk suuremal määral kui andetu.
'He is lazy to a greater degree than he is giftless.',
i.e. it is weighed which of the two given qualities is
possessed by that object to a greater degree.

Any adjective, adverb, verb, etc. may be combined with
rohkem to form sentences where rohkem means pigem(ini),
or tõenäolisem 'more likely'. However, not every adjec-
tive, adverb, verb, etc. can be combined with rohkem to
form sentences where rohkem occurs in its primary meaning
'more'. The sentence:
(11) Ta on rohkem pikk kui lühike
has only one interpretation:
(12) Ta on pigem pikk kui lühike.'He is rather tall than
short.'

It is not difficult to see that the reason why the other
interpretation is missing here is that one and the same
object cannot have two opposite qualities pikk 'tall' and
lühike 'short' at one and the same time.

4. pigem(ini), enne(m(ini)) and rohkem are so-called
+POL comparative adverbs, i.e. they render the superiority
of something to something else. However, they lack a -POL counterpart. The only applicant might be vähem 'less'; yet neither the author’s idiom nor the files of the literary Estonian language manifest such usage of the adverb vähem.
ON HANDLING MORPHOLOGICAL EXCEPTIONS

Mati Hint

1. No description of morphology can do without exceptions. However, the number of exceptions need not be the same in all descriptions, i.e. it may depend on the method of description and on the correctness of analysis. Hence it is necessary to keep pseudoexceptions apart from the real ones that have come into being through historical development or as neologisms.

As an example of a pseudoexception in the morphological analysis of Estonian may serve V. Hallap's claim that the Nominative Pl. form of the word jõud 'force' consists of two allomorphs: 1) the lexical morpheme jõud, 2) the zero allomorph of the morpheme of the plural (Hallap 1964: 7).

Such an analysis would result in a morphological description which would present two types of the formation of the Nominative Pl. form:

1) the lexical stem morpheme (= Nominative Sg.) + the zero allomorph of the morpheme of the plural: jõud 'force', kiud 'fibre' (2 words in all);

2) the Genitive Sg. form of the stem morpheme + the plural allomorph ă: all the other words.

Here the group of exceptions is obviously pseudoexceptional; in fact the plural word forms jõud and kiud consist of the Genitive Sg. form + the ă of the plural in exactly the same way as all the other Nominative Pl. forms.

2. The establishment of pseudoexceptions based on superficial analysis may cause distortions not only in the treatment of the particular incorrectly analysed
forms, but also in the internal system of other parts of the morphological description.

As soon as Hallap's analysis is accepted in the case of Nominative Pl. jōud, the whole morphological inflexion type is frustrated where this word is involved. The flexion type would split into two types:

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<tbody>
<tr>
<td>j'ōud 'force'</td>
<td>j'ōu + d</td>
<td>j'ōud</td>
</tr>
<tr>
<td>k'iu 'fibre'</td>
<td>k'iu + d</td>
<td>k'iud</td>
</tr>
<tr>
<td>l'aug 'eyelid'</td>
<td>l'au + d</td>
<td>l'aud</td>
</tr>
<tr>
<td>s'iug 'snake'</td>
<td>s'iu + d</td>
<td>s'iud</td>
</tr>
<tr>
<td>t'oug 'breed'</td>
<td>t'ōu + d</td>
<td>t'ōud</td>
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</tbody>
</table>

Further the whole treatment of stem grade degrees would be in confusion: the Nominative Pl. forms jōud, kiud would appear to be in strong grade, which would mean another exception in the treatment of the entire system of grade alternation.

3. There is hardly any good reason at all why the type of jōud - tōug should be treated as a separate type. It is a regular grade-alternating inflexion type which differs from the type of laud : laua only in the surface structure.

It is the simplest way of describing the morphology of words having the strong-grade Nominative Sg. and the weak grade Genitive Sg. if we consider the strong-grade Partitive Sg. as the basic form since it contains the stem vowel (Hint 1969; 1972b). Such a system would incorporate the words of the type of jōud - tōug as well, in spite of the fact that the Genitive Sg. of these words is monosyllabic and thus exceptional to the general type.
where the Genitive Sg. is disyllabic. The phonological rules will grant the correct output (these rules are given below in a simplified form and only partially).

Part. Sg. | Gen. Sg.
---|---
1. d; k → Ø
2. ' → Ø

<table>
<thead>
<tr>
<th>Part. Sg.</th>
<th>Gen. Sg.</th>
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<tbody>
<tr>
<td>l'auda 'table'</td>
<td>laua</td>
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<tr>
<td>l'óuga 'chin'</td>
<td>lóua</td>
</tr>
<tr>
<td>l'aidu 'islet'</td>
<td>laiu</td>
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<tr>
<td>p'eigu 'bridegroom'</td>
<td>peiu</td>
</tr>
<tr>
<td>j'óudu 'force'</td>
<td>jóuu</td>
</tr>
<tr>
<td>t'óugu 'breed'</td>
<td>tóuu</td>
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</table>

The rules of deriving the weak-grade Genitive Sg. - d, k → Ø and ' → Ø (where " is the marker of the third degree of quantity) - are among the basic rules for the treatment of grade-alternating words in Estonian morphology. Their application gives morphophonological forms of the Genitive which are to pass the system of phonological realization rules (a phonological filter). These are some of the phonological rules:

(1a) [m] → / V_u - a /
(1b) [i] → / V_i - u /
(1c) [w] → */ V_u - u /
(2) V_1V_2V_2# → V_1V_2#

These rules insert automatic semivowels, [m] and [i], into the syllable boundary of vowel sequences (1a and 1b), or exclude the insertion of the semivowel (1c) and reduce morpheme-final vowel sequences V_1V_2V_2#.

Neither are these rules specially formulated for the description of the inflexion type under discussion, they are general rules of Estonian phonology (Hint 1971: 73 - 80; 1972b: 610). As a matter of fact, the rule V_1V_2V_2# →
\( V_1V_2^* \) is even more extensive, or rather part of a wider rule:

\[
\begin{align*}
V_1V_1V_2 \\
V_1V_2V_2
\end{align*}
\] → \( V_1V_2 \) / \# /

(i.e. a sequence of two identical vowels and one different vowel generated as a result of morphological processes is reduced to a diphong: the rule applies also in such cases as \( \text{s'ae} \) : \( \text{sa}ae \rightarrow \text{sa}e \) 'saw' and \( \text{l'aa}en \) : \( \text{la}en \rightarrow \text{la}en \) 'to load' etc.; \# stands for the end of a word or morpheme).

The morphophonological outputs of the generated Genitive, subjected to realization rules, yield regularly correct outputs:

- \( \checkmark \) \( \text{laua} \) \( \rightarrow \) \([\text{lauwa}]\) (rule 1a);
- \( \checkmark \) \( \text{loua} \) \( \rightarrow \) \([\text{leuwa}]\) (rule 1a);
- \( \checkmark \) \( \text{laiu} \) \( \rightarrow \) \([\text{laiju}]\) (rule 1b);
- \( \checkmark \) \( \text{peiu} \) \( \rightarrow \) \([\text{peiju}]\) (rule 1b);
- \( \checkmark \) \( \text{jouu} \) \( \rightarrow \) \([\text{jemu}]\) (rules 1c and 2);
- \( \checkmark \) \( \text{tuuo} \) \( \rightarrow \) \([\text{teju}]\) (rules 1c and 2).

Thus the type of \( \text{jiou} - \text{tou} \) is a regular morphological type; it is not a separate type in systematic treatment.

Note that the synchronically recent rule which prohibits the insertion of the semivowel \( [w] \) (resp. deletes the semivowel \( [\text{w}] \)) before \( u \) is also historically recent, cf. South Estonian dialectal forms \( \text{si}\text{u}\text{G} : [\text{si}\text{v}\text{u}] \) or the forms \( \text{auwo} 'honour', \text{neuwo}, \text{nuuwo} 'advice', \) etc. in the 17th century texts.

4. Totally different are such morphological exceptions that do not fit in the system of general morphophonological and phonological realization rules, i.e. words requiring either the formulation of ad hoc rules in order
to arrive at the correct forms or the listing of the exceptional forms. Such are the exceptions in Estonian shared with other Baltic-Finnic languages: pronouns like *mina 'I', *sina 'you', *tema 'he, she', *see 'this', *too 'that', etc., verbs like *nägema 'to see', *tegema 'to do', *minema 'to go', etc.

There are two fundamentally different possibilities of treating such exceptions. First (and preferably in the author's opinion) the exceptionality may be treated in the surface structure only, listing the exceptional morphological forms. In this case the underlying representations of these words remain in accordance with the morpheme-structure rules.

The other possibility is the changing of the background of the exceptionality of these words and the construction of underlying representations which, upon applying general morphophonological rules and phonological realization rules are able to give correct outputs. Such procedure is preferred in generative phonology (Wiik 1967: 57, 115 ff., 121ff.; cf. Hint 1972a: 75). In this case the constructed underlying representations are certain to violate the morpheme-structure rules; in other words, the exceptionality has been shifted to another level. One cannot be sure whether it is altogether possible, without morphophonological *ad hoc* rules, to force all the exceptions into the morphological system even by this kind of procedure.

A real exception remains an exception; it is marked in the morphological system or in the lexicon (or in both).

5. Some clarification is needed for the theoretical status of exceptions. An opinion has been expressed that exceptions may serve as a beginning of a new phonologi-
cal and morphophonological regularity (Anttila 1972b). This is obviously the way how the Estonian type of tubli-piiga, embracing the disyllabic words without grade alternation, has come into being, and possibly in the same way a new type is coming into being in Finnish—that of neologisms without grade alternation (auto, valpo). In a case like this a new regularity appears in the language via new words, and part of the genuine words may adapt themselves to them (like neiu 'maiden', peiu 'bridegroom', in the type of tubli). In this case we are concerned with paradigms modified on analogy.

A different kind of exceptionality is that of archaisms or relic words which cannot constitute a productive type. That exceptionality results from resistance to analogical leveling. In literary language it would be purposeless to preserve artificially such exceptional sound law paradigms that are liable to analogization.

In Estonian an exception of this kind is haug 'pike' whose standardized inflexion h\textsuperscript{'a}ug : h\textsuperscript{a}ugi is the only irregular paradigm among the possible ways of inflexion for the word:

<table>
<thead>
<tr>
<th>Nom. Sg.</th>
<th>Gen. Sg.</th>
<th>Part. Sg.</th>
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<tbody>
<tr>
<td>havi</td>
<td>havi</td>
<td>havi</td>
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<tr>
<td>h\textsuperscript{'}aug</td>
<td>haugi</td>
<td>h\textsuperscript{'}augi</td>
</tr>
<tr>
<td>h\textsuperscript{'}aug</td>
<td>haue</td>
<td>h\textsuperscript{'}auge</td>
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</tbody>
</table>

(besides, the last variant follows the 'sound law').

The different nature of the exceptionality of neologisms and relic words in the morphological system of the language suggests the admission of a three-step classification:

1) regular type,
2) exceptional type,
3) exceptional word.

An exceptional type of relic words remains exceptional as long as it is not analogized with some general type, the
principle that regularity begins with two cases of occurrence (Anttila 1972a: 6) does not hold here (cf. Anttila 1972a: 125 and 1972b). An exceptional type of neologisms may readily transform into a regular type.

References


Hint 1964. Х и н т, М. Создание морфофонологической транскрипции для описания морфологии эстонского языка. - СМУ У, pp. 3 - 17.


In 1968 Ch. Fillmore put forward a new universal grammatical conception of case grammar (Fillmore 1968). Very soon his conception was well known and it became the foundation of building up generative semantics.

The basic idea of the conception is the following. The center of the sentence is the predicator verb and all the other elements in the sentence — so called arguments — are connected with the predicator by the help of semantic relations which are named cases. Fillmore points out that the case relations are the most elementary semantic relations in the sentence. Following his ideas many other investigators have developed his system. New cases have been added and the already existing cases have been divided into still more elementary ones (Lehiste 1969, Erelt 1970 and others).

In 1971 Fillmore published a new work in which he followed only his own principles, giving an entirely new division for the case relations (Fillmore 1971). Cases mark semantic functions carried by arguments in predication. But often the new theory contradicts namely the principles Fillmore asserts he adheres to. Fillmore's aim is obviously to try to cover all the types of semantic relations existing in languages, in other words to describe as thoroughly as possible the semantics of the simple sentence with the minimum number of cases possible.

The new cases used by Fillmore are more abstract and less defined and this contradicts the basic idea of generative grammar given in the earlier conception, namely that cases express the most elementary semantic relations. First of all, the new division makes the concrete fi-
xation of case relation in sentences, i.e. the application of case grammar in practice more complicated and problematic (if we do not forget one of the basic conditions of the case grammar that in a simple sentence in the function of one case there can be no more than only one NP). For example in the sentence Father made a sledge for his son both for his son and a sledge can be analysed like GOAL.

The second obvious drawback of Fillmore's new conception is the fact that no difference is made between 'animate' and 'unanimate' complements. At least in Estonian ANIMATE and UNANIMATE are highly important semantic categories and it would hardly simplify grammar if we ignore them in the underlying structure. For example most Estonian verbs are characterized by the fact that their complements have semantic marker either ANIMATE or UNANIMATE. It would be natural if it were reflected by the case environment of different verbs.

References
ON OPERATIONS WITH good AND bad

Arvo Krikmann

In bivalent truth logic, as a rule, only 5-7 of all possible 16 functions of the binary variable (in the case of two arguments) are considered as sufficiently interpretable and used as logical operations. However, if we interpret these functions not in propositional (true-wrong), but in axiologic (good-bad) terms, it seems to be possible to provide interpretations of far greater number, without good reason to prefer just those among them which are used in truth logic.

Let X and Y be some variables. We may conceive them as verbally described facts, or, simply, as some factual or imaginable events or situations which can be labelled with qualifiers good or bad. With \((X,Y)\) we mark a complex situation or a chain of events consisting of two partial situations resp. events X and Y. The whole set of possible axiologic \(X,Y\)-functions with a conceivable classification of them is rendered in the scheme below. In the case of functions of equivalent arguments (1)....(8), in principle, no semantic connection between X and Y is demanded. In other cases (9)....(16), on the contrary, we must regard X as "antecedent" and Y as "consequent", i.e., interpret them as, e.g., temporally arranged (X the earlier, Y the later), or causally arranged (as deed and result, or action and reaction, or intendable and receivable, etc.), or pragmatically non-equivalent events or situations (e.g., as "neighbour's" status and evaluator's own status, or the action of 'I' towards 'world' and the reaction of 'world' towards 'I' respectively, etc.). Restrictions of that kind may also be re-
|   |   | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | Y |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| good | good | good | good | good | good | good | good | good | good | good | good | good | good | bad | bad | bad |
| bad | bad | bad | bad | bad | bad | bad | bad | bad | bad | bad | bad | bad | bad | good | good | good |

Systems

indifferent

Susceptible to

syntax of arguments

with harmony preferred

with disharmony preferred

semantics of

both arguments

with adequ. resp. on

with parad. (X-adeq.) resp. on

one argument only

with parad. (X-adeq.) with Y-adeq. resp. on

with parad. (X-adeq.) with resp.

with parad. adeq. parad. resp.

adeq. = adequate
parad. = paradoxical
resp. = response
fastid. = fastidious
req. = requirements

f(X, Y)
tained in the interpretations of functions (1)....(8).

We attempt, now, to demonstrate that the functions under discussion can be interpreted as different conceivable attitude systems of different humans towards this kind of complex situations or chains of events.

1. **System (2).**

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<tr>
<th>X</th>
<th>Y</th>
<th>f(X,Y)</th>
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<tbody>
<tr>
<td>good</td>
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The logic of absolute pessimism or morbidly critical attitude towards real happenings. Psychically paradoxical response in case of X good, Y good → f(X,Y) bad may be interpreted as, e.g., fear of deterioration of a perfectly good situation (cf. here and in system (1) the anecdote about the man who smiled when it was raining and cried when the weather was splendid). Remakes to *contradiction in truth logic.*

2. **System (1).**

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The logic of absolute optimism or entire absence of criticality, contrary to system (2). Paradoxical case X bad, Y bad → f(X,Y) good may be interpreted as hope of improving a totally bad situation, or, if we conceive X and Y as causally related, as delight in experience gained from a painful lesson, etc. Reminds of *tautology* in truth logic.

In recent interpretations we regarded systems (2) and (1) as extreme, paradoxical extensions of more rational and moderate systems (6) and (5) resp. They might also be explained as pathological, permanently depressive or permanently gay emotional states where any adequate reaction of the person to reality is excluded. In this
case, however, it is also questionable how such a person is able to evaluate even the events X and Y separately.

3. System (6). \[
\begin{array}{ccc}
\text{X} & \text{Y} & f(X,Y) \\
good & good & good \\
good & bad & bad \\
bad & good & bad \\
bad & bad & bad \\
\end{array}
\]

The logic of rational pessimism (or minimal optimism), or fastidiously critical attitude towards the world. Regards as good only those situations which are good in both (all) component situations, or events where both actions and results are good, etc. Reminds of conjunction in truth logic.

4. System (5). \[
\begin{array}{ccc}
\text{X} & \text{Y} & f(X,Y) \\
good & good & good \\
good & bad & good \\
bad & good & good \\
bad & bad & bad \\
\end{array}
\]

The logic of mild optimism, or minimal pessimism or criticality, identical with system (6) in attitude towards totally good and totally bad situations (events) and differing from it in case of partially good and partially bad situations (events). Reminds of disjunction in truth logic.

5. System (7). \[
\begin{array}{ccc}
\text{X} & \text{Y} & f(X,Y) \\
good & good & bad \\
good & bad & good \\
bad & good & good \\
bad & bad & good \\
\end{array}
\]

The logic of moderate evil, contrary to system (6). Regards as good those events or situations which include at least something bad and does not tolerate perfectly good states and happenings. Reminds of Sheffer's stroke in truth logic.
6. System (8).

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<th>X</th>
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<td>good</td>
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The logic of absolute evil, contrary to system (5): does not tolerate in the least good, only totally bad situations and events are acceptable and pleasant.

7. System (3).

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<th>Y</th>
<th>f(X,Y)</th>
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The logic of statics or harmony, considers as good only these situations which are internally harmonious: or both good or both bad. If applied to a chain of causally connected events it may be titled also as logic of justice. Reminds of equivalence in truth logic.

8. System (4).

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The logic of dynamics or disharmony, contrary to system (3). Regards as good only internally contradictory situations. In case of connected events may also be interpreted as logic of principal unjustice. Reminds of anti-equivalence in truth logic.

The following eight systems, namely (13) ....(16) and (9)...(12), where arguments are obligatorily distinguished, non-equivalent, can be interpreted only with certain restrictions, as already noted above. Below we present two of them:

(i) X = the action of the person towards the world,
     Y = the result of this action from the standpoint of the actor
(temporal-causal connection of X and Y, the evaluating subject may be the actor himself or somebody standing by);
(ii)X = the status of "neighbour",
Y = the status of 'I'
(the evaluating subject is, in this case, obligatorily the same 'I').

In the four following systems (13) ...(16), the axiologic value of (X,Y) depends on the value of one argument (either X or Y) only.


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<th>f(X,Y)</th>
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The X-orientated attitude with adequate response in (X,Y), absolutely indifferent to values of Y.
In both subinterpretations (i) and (ii) it can be called the logic of self-sacrifice, martyrdom and altruism: the result is taken for good if the action is good (i), or if the status of "neighbour" is good (ii), no matter what are the results of the action for the actor himself (i), or what is the evaluator's own status (ii).

10. System (14).

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>f(X,Y)</th>
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<tbody>
<tr>
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</tbody>
</table>

The X-orientated system with paradoxical response, contrary to system (13). In subinterpretation (i), it is the logic of "self-denying" evil: an event is qualified as good if the action towards the world has been bad. In subinterpretation (ii) it is the typical logic of envy and malicious joy: the situation is good if the "neighbour's" status is bad, and vice versa, without giving any importance to the actor's (i) or evaluator's (ii) own status.
11. **System (15).**

<table>
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<tr>
<th>X</th>
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The Y-orientated attitude with adequate response, the typical logic of cynical pragmatism and egoism: every action is good if it brings a good result for the actor (i), or if the evaluator's own status is good (ii). It can be interpreted also as a "happy end" attitude.

12. **System (16).**

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<th>X</th>
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The Y-orientated attitude with paradoxical response, contrary to system (15). It may be interpreted as masochistic logic: only this is perceived as good which results in bad (i), or the whole situation is perceived as good only if the evaluator's own status is bad (ii).

The following four systems (9)...(12) may be conceived as disjunctive or conjunctive (mild or fastidious) combinations of systems (14) with (15) and (13) with (16) respectively.

13. **System (9).**

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</table>

The attitude orientated adequately towards Y and paradoxically towards X. Represents a moderate modification of a very natural and wide-spread combination of evil and egoism: the chain of events gets appraisal good if the actor has done something bad to the world, or has obtained some good result, or both simultaneously (i); the situation is good if the evaluator's own status is...
good, or the "neighbour's" status is bad, or both simultaneously (ii). Reminds of implication in truth logic.

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<tr>
<th>X</th>
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</table>

Fastidious modification of system (9). Only such events are good where the action is bad and the result good (i); only such situations are qualified as good where the evaluator's own status is good and the "neighbour's" status is simultaneously bad.

15. System (11).  
<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>f(X,Y)</th>
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</table>

The attitude orientated towards X adequately and towards Y paradoxically, contrary to system (10). It may be interpreted as a moderate combination of altruism and masochism, practically, a totally irreal view of life.

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>f(X,Y)</th>
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<tbody>
<tr>
<td>good</td>
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</tbody>
</table>

Fastidious modification of system (11), contrary to system (9). Even more refractory to any rational interpretation than (11).
ON FUNCTIONAL ANALYSIS IN THE GROUP OF PARALLELISM

Helle Niinemägi

1. The basis of functional sentence analysis is the degree of communicative dynamism (CD) of sentence elements. The CD degree is the extent of communication contributed by an element; it depends on verbal, situative, formal and essential context. We may conventionally divide a sentence into comment (i.e. the part of sentence that conveys new information and to which belong elements with higher CD. We designate it by a symbol C) and topic (i.e. this part of sentence that contains information known to us already and to which belong elements with lower CD. Its mark is T).

2. The metre of the alliterative verse affects actual analysis by influencing the number of elements. As the four-element verse occurs most frequently, there are usually 3 CD-degrees of the comment in the alliterative verse. The CD-degrees of T begin from the fourth. There are 3...6 elements in the verse altogether, if the number of the elements exceeds the number of metrical feet we can find many elements of the Ø-degree that do not carry information.

3. The scheme of the CD-structure of the group of parallelism can be as follows:

\[
\begin{align*}
&3\ldots6 \\
&\{C' + C' + \ldots\} \\
&\{C' + 1\} + (C' + 1) + \ldots(\pm T) \\
&2\ldots6 \\
&\ldots \ldots \\
&\ldots \\
&7
\end{align*}
\]

i.e. in most cases there are two elements that form the axis of parallelism. In the main verse these two elements occur in CD-degrees of comment, one of them mostly in the first degree, and in the following verses they undergo certain shifts. CD-degree is reduced in each following verse by one, maximally to the 7th degree, which is the line between infor-
mativeness and non-informativeness and which therefore determines the lowest CD-limit of elements in any verse. The maximum length of the group of parallelism is 6, for the second informative element reaches the 7th degree at least in the 6th verse. The main shifts are accompanied by T-elements in several combinations and degrees of dynamism. E.g.

\[
\begin{array}{cccc}
3 & 4 & 5 & 1 \\
\emptyset & 3 & 2 & 2
\end{array}
\]

Sulle säi ma siididse sängü, \[1+2+3+T\]

\[
\begin{array}{cccc}
\emptyset & \emptyset & 3 & 4
\end{array}
\]

Säie katme kalevudse \[2+3 \emptyset\]

\[
\begin{array}{cccc}
\emptyset & \emptyset & \emptyset & 3 \\
\emptyset & \emptyset & 4 & 4
\end{array}
\]

Sulle sei ma sälkadse aseme, \[3+4 \emptyset\]

\[
\begin{array}{cccc}
6 & 5 & 4
\end{array}
\]

Panni pad'a prantsuskatse.

4. The summary CD of a verse descends steadily in the group of parallelism. That descending line may be a criterion for distinguishing both the groups of parallelism and verses of different significance (the main and accompanying verses).
Besides a number of obvious analogies in the output of the father, mathematician, and the son, linguist, such as:
- engagement both in fundamentals and periphery;
- the ability to create a complete theory starting from giving a (new) set of axioms;
- the publication, with commentaries, of the works of "the grand Danish predecessors" (Georg Mohr, Rasmus Rask);
- the relatively slow but uninterrupted dissemination of ideas;
- the position of the leading figure "in his own field in his own country";

it is certainly possible to perceive deeper similarities implicit in the simultaneous development of two (partly polar) theories and in endeavours to combine them, and (especially) in the location of the whole of this process in time.

It is interesting that (at least by modern means) some direct transformations are possible between certain constructions of JH and LH.
1. Some researchers of the Estonian language (K. Kure 1959:43; 1963:34; J. Valgma, N. Remmel 1968:114) have alongside with independent verbs and auxiliary verbs considered modal verbs to be a separate group of verbs in Estonian.

2. From the point of view of semantics modal verbs express the attitude, opinion or evaluation of the speaker as regards the possibility or obligatoriness of the occurrence of action.

3. Not all semantically modal verbs have lost the status of grammatically independent verbs. Besides the specific semantics completely modal verbs are characterized by absence (resp. inadequacy) of syntactic independence, a fact that approximates them to auxiliary verbs and distinguishes them from independent verbs.

4. The verbs võisma 'may', pidama 'must', näima 'seem', paistma 'seem', tunduma 'seem' are considered to be completely modal verbs in Estonian when they are used together with a main verb in the infinite form. The present report comprises the syntactic characterization of the above mentioned Estonian modal verbs.

5. The independent verbs either exclude the occurrence of the subject in the sentence, require the subject in the nominative case or require the subject in the nominative or partitive case. The modal verbs require the existence of no such features. The occurrence or form of the subject do not depend on them. The occurrence and the form of the subject in sentences containing modal verbs are determined by the main verb. Let us compare the modal verb võisma 'may' in different sentence patterns:
Ma kirjutan kirja 'I am writing a letter' - Ma võin kirjutada kirja 'I may be writing a letter'. Pliiats on sinine 'The pencil is blue' - Pliiats võib olla sinine 'The pencil may be blue'. Mul on raamat 'I have a book' - Mul võib olla raamat 'I may have a book'. Toos esineb vigu 'There are some mistakes in the work' - Toos võib esineda vigu 'There may be some mistakes in the work'. Tuiskab 'There's a snow-storm' - Võib tuisata 'There may be a snow-storm'.

6. Thus the modal verbs võima, pidama, näima, paistma, tunduma have no complete sentence pattern, there is no elementary sentence of their own (minimum sentence pattern). They require a certain infinite form of the main verb: võima - the da-indefinitive, pidama - the ma-indefinitive, näima, paistma, tunduma the vat-form (the partitive of the present participle), and occur in elementary sentences of the main verbs. When these verbs occur without the infinite form, together with some other secondary part of a sentence, they are no modal verbs.

7. As by means of the ja-suffix it is possible to form only those verbal nouns which are in the Agentive relation with the verb (R. Kasik 1971:13), it is impossible to form the verbal nouns with -ja from modal verbs - the modal verbs are irrelevant with respect to the subject and they never have relation of the Agentive.

8. Generally it is impossible to use the modal verb in the infinite form after a verb requiring the infinitive. It means that the modal verb can never occupy a place of a lexically important main verb. Compare: Ma võin kirjutada 'I may write' - Õ Ma hakkan võima kirjutada 'I shall be allowed to write' - Õ Ma kavatsen võida kirjutada 'I am going to be allowed to write'. Ta näib mõtlevat 'He seems to think' - Õ Ta kipub näima mõtlevat 'He tends to seem to think' - Õ Ta soovib näida mõtlevat 'He is eager to seem to think'.

27
9. Relations between the modal verbs and the auxiliary verb *olema* 'be' are peculiar in Estonian. The auxiliary verb *olema* 'be' is also irrelevant with respect to the subject as the latter is determined by the main verb (e.g. *Ma olen kirjutanud* 'I have written'. *Mul on olnud raamat* 'I have had a book'. *Töös on esinenud vigu* 'Some mistakes have occurred in the work'. *Pliiats on olnud sinine* 'The pencil has been blue'). The auxiliary verb *olema* causes the occurrence the nud-participle and tud-participle, not that of the infinitive. The main difference between the modal verbs and the auxiliary verb *olema* is semantic. The modal verbs have preserved a certain meaning which may be treated as the lexical meaning (when one does not form different moods from them). The auxiliary verb *olema* has no lexical meaning. It has the grammatical meaning only.

Another essential difference lies in the fact that a modal verb can have the combination of the auxiliary verb *olema* and the participle as its main verb, while the auxiliary verb *olema* is in the infinite form required by the modal verb. For example: *Ma võiksín olla selle too kirjutanud* 'I might have written the work'. *Ta näis olevat selle kirja kirjutanud* 'He seemed to have written a letter'. *Ta pidi olema selle töö kirjutanud* 'He was to have written the work'.

This fact either disproves the assumption that the auxiliary verb *olema* can occur only in the perfect or past perfect tense or requires the revision of the accepted scheme of the Estonian verb forms.

10. Taking into account the above-described absence of the syntactic independence of the modal verbs and the fact that a whole sentence pattern is determined by the modal verb together with the main verb, we are justified to conclude that the modal verbs *võima*, *pidama*, *tunduma*, *näima*, *paistma* together with the main verb in the infinite form form a compound predicate, the verbal centre of the sentence.
Thus it is necessary to reconsider the recent point of view of the traditional syntaxes of the Estonian language according to which the compound predicate may be formed only by the verb *tuleb* 'have to' together with the infinite form (e.g. *Mул tuli kirjutada* 'I had to write') (Väärä 1972: 97).

*tuleb* does not belong to modal verbs due to grammatical reasons. It requires a very detailed sentence pattern, namely: (*N^1+ad.*) *V^1+3.p.+sing.* *V^2+da*. The verb *tuleb* excludes the occurrence of the subject in the sentence (and occurs itself in the 5.p.+sing. only), it requires optionally the noun in the adessive case (*N^1+ad.*) and obligatorily the *da*-infinitive of the secondary verb (*V^2+da*).

In addition to these syntactic restrictions this verb requires that *N^1* (i.e. the noun which simultaneously expresses the agent of the secondary verb) have the feature */ + Animate/*. Let us compare the sentences *Ma kirjutan* 'I am writing' - *Mul tuleb kirjutada* 'I have to write' - *Tuleb kirjutada* 'It is necessary to write'. But: *Aken kliirises* 'The window clattered' - *Aknal tuleb kliirisda* 'The window has to clatter'. *Tööga kaasneda onnetus* 'An accident concurred the work' - *Tööga tuleb kaasneda onnetusel* 'An accident has to concur the work'.

These considerations enable us to conclude that the verb *tuleb* does not belong to completely modal verbs and cannot be a part of the compound predicate.

References


K u r e, K. 1963. Eesti keele lauseehituse põhiüksus. - Eesti keele súntaksi küsimusi. Keel ja Kirjanduse
SOME TYPOLOGICAL ANALYSES IN THE PHASE SPACE OF LANGUAGE DYNAMICS

Mart Remmel

Applying the conception of phase space introduced by M.A. Cherkassky (1971) it is demonstrated that several different kinds of cyclicity of language changes may exist; such as: cyclicity with potential entrance or exit; expanding and contracting cycles; lengthening and shortening cycles; diffuse and compact cycles; etc. An attempt is made to describe these kinds by finding appropriate phase spaces.

Reference

Cherkassky, M. A. 1971 = Черкасский, М.А.
К построению лингвистической типологии на основе модели фазового пространства и манифестационного анализа языка. Калининский Государственный Педагогический Институт имени М.И.Калинина. Сборник докладов и сообщений лингвистического общества. 11. Выпуск второй. Калинин, стр. 5 - 37.
SOME WORD SETS OF VARIOUS SECTIONS OF SUBLANGUAGES
IN NEWSPAPERS

Jüri Valge

1. The present report may be regarded as an extension of the research in the field of newspaper vocabulary (J. Valge, 1971). The material amounts to 25000 entries which includes all groups of the main publicistic genres. The texts analysed have been divided as follows:

a) reports of TASS (informational genres) - 5000 entries;

b) articles about foreign policy, agriculture and sports (discussional genres) - 5000 entries;

c) articles about culture (publicistic - fictional genres) - 5000 entries.

2. In the present report the definitions of positive and negative key words together with the definitions of the sets of words characteristic of the language (i.e. systems of sublanguages) are given. Some peculiar features of the above-mentioned sets of words are described.

3. The necessity of the application of statistic criteria in the case of the specification of the defined sets of words are explained.

4. The sets of positive key words are given in isolated sections of sublanguages (in relation to other sections of sublanguages):

a) reports of TASS: agressioon 'agression', agressor 'aggressor', eile 'yesterday', keskkomitee 'Central Committee', lendur 'pilot', provints 'province', resolut-sioon 'resolution', ründama 'attack';

b) articles about foreign policy: kokkulepe 'agreement', valimised 'elections', veenbruar 'February';
c) articles about agriculture: farm 'farm', kaal 'weight', kasvatamine 'growing', kolhoos 'collective farm', mahutama 'accommodate', majand 'enterprise', masin 'machine', mehhaniseerima 'mechanize', mehhanism 'mechanism', põld 'field', seeme 'seed', sovhoos 'state farm', teravili 'grain', traktor 'tractor';

d) articles about sports: jooks 'race', kergejõustik 'track and field', koondis 'team', mat 'match', medal 'medal', meeter 'metre', meistrivõistlused 'championship competitions', mullune 'last year's', naiskond 'female team', rada 'track', rekord 'record', sakslane 'German', sport 'sports', sportlane 'sportsman', suurmeister 'grand master', treener 'coach', treening 'training', turniir 'tournament', valmistuma 'prepare', viik 'draw', võistkond 'team';

e) articles about culture: autor 'author', isiksus 'personality', kas (conj.) 'if', kohati 'in places', kunstiline 'artistic', kunstnik 'artist', lavastaja 'producer', teema 'theme', teos 'work', värv 'colour'.

5. The sets of negative key words are given in isolated sections of sublanguages (in relation to other sections of sublanguages):

a) reports of TASS: ilma 'without', ju 'after all', kas (adv.), käima 'go', küll 'enough', miski 'something', muidugi 'of course', näide 'example', olenema 'depend', pakkuma 'offer', palju (adv.) 'much', pikk 'long', põhjust 'cause', siis (adv.) 'then', siiski 'though', silm 'eye', suvi 'summer', tagasi (adv.) 'back', tugev 'strong', vaid (adv.) 'only', vana 'old', vara 'early', vedama 'pull';

b) articles about foreign policy: kuidas 'how', naine 'woman', ostma 'buy', tõusma 'rise';

c) articles about agriculture: aidama 'help', algama 'begin', alustama 'start', eesmärk 'aim', esile 'forward', esitama 'present', kestma 'continue', kohtuma 'meet', kohtumine 'meeting', laps 'child', liit 'union',
loobuma 'give up', mees 'man', pool (pp.) 'at', positsioon 'position', pühendama 'dedicate', rahu 'peace', rahvus 'a people', rahvusvaheline 'international', vahel (pp.) 'between', valitsema 'reign', vastu (pp.) 'against', ära (adv.) 'away';

d) articles about sports: all (adv.) 'below', alus 'base', jaanuar 'January', järgi 'according to', komunistlik 'communist', küsimus 'question', peamine 'main', probleem 'problem', progressiivne 'progressive', tähtis 'important', vaatama 'look', vastutama 'be responsible', võimaldama 'enable', õigus 'justice', ülesanne 'task';

6. The set of words characteristic of the analysed sections of sublanguages are presented:

aasta 'year', aeg 'time', andma 'give', ei 'not', et 'that', iga (pron.) 'every', ja 'and', juba 'already', ka 'too', kaks 'two', kes 'who', kord 'once', kui 'when', kuid 'but', kus 'where', kõik 'all', me 'we', mis 'what', nende 'their', ning 'and', olema 'be', oma (pron.) 'one's own', osa 'part', pidama (pidas) 'keep', saama 'get', see 'this', suur 'big', ta 'she, he', tegema 'make', teine (pron.) 'other', uus 'new', veel 'more', võtma 'take', üks 'one', ütlema 'say'.

7. The peculiar features of the defined sets of words on the basis of the presented material are observed. Some conclusions from the analysed sections of sublanguages are drawn.

33
Reference

ON THE SEMANTIC TYPES OF THE ise-SENTENCES IN ESTONIAN
Ülle Viks

The present paper describes some semantic types of the sentences containing the word ise.

Type A: 1) Ta ise on rumal. 'He is fool himself.'
   2) Mina ise kuulsin sellest viimasena. 'I myself was the last to hear about it.'
   3) Ta räägib oma seiklusest ise. 'He speaks about his adventure himself.'
   4) Laual oli ainult pussi tupp, puss ise oli kadunud. 'There was only the sheath of the dagger on the table, the dagger itself was gone.'

The use of ise in the sentences of this type presupposes that the person (thing or phenomenon) denoted by the main word ise is known already and is in a kind of relationship with other persons (things or phenomena). ise indicates that we have in view namely that particular person (thing or phenomenon) and not somebody else. The subtypes are determined according to the mode of the relationship between the person, emphasized, and the other ones.

Type B: 1) Haige suudab juba ise käia. 'The patient is already able to walk by himself.'
   2) Uks läks ise lahti. 'The door opened by itself.'

Sentences of this type presuppose that there exists somebody (something) who (that) can help to perform the action or serve as the cause of the action. ise asserts that the action is performed by oneself (on one's own) without the help of somebody (something) else; or that the action takes place spontaneously without anybody (anything) to cause it.
There are a number of sentences that can be interpreted both ways, e.g. Ta tuli ise 'He came himself / He came by himself', Ta lahendas ülesande ise 'He solved the problem himself / He solved the problem by himself'.

This division into types is by no means final and complete. We have left out such types of ise-sentences as for example: Ta on lahkus ise. 'He is all kindness.'

Ta kannab iga päev ise värvilipsu. 'He wears ties of different colour every day.'
Ta lobises lõbusalt, ise hoidis aga pisaraid tagasi. 'She chatted joyously, although she felt like crying.'

The problem to which part of speech the word ise belongs remains also obscure. It is evident that ise is not always a determinative (emphasising) pronoun, though traditionally called so. It may belong to other parts of speech as well, e.g. in the B type it can certainly be considered as an adverb.
WORDS in Estonian consist of one or more SYLLABLES, those being STRESSED (having either the primary or the secondary stress) or UNSTRESSED, OPEN (ending in one or two vowels) or CLOSED (ending in one or more consonants). The stressed syllables are SHORT (open syllables ending in a single vowel) or LONG. Long syllables are WEAK or STRONG, the latter being marked by the grave accent.

Accepting the phonological transcription proposed in Viitso 1962, in a slightly modified form, and using the syllable boundary symbol /./ which otherwise remains unexploited, the types of stressed syllables can be illustrated as follows.

- **short**          
  - weak ut.te          
  - strong ut.te

- **open** uu.te [uDe üDe ūDe]
  - weak uut.te
  - strong uut.te

As Estonian children master the correct usage of weak and strong syllables before they master the phoneme system (cf. Oksaar 1970) and as the alternative usage of weak and strong stressed syllables is characteristic of Estonian accent of speaking foreign languages the conditions of such assignment are of special interest in the present paper.

1. Prolongation of vowels in stressed syllables is characteristic of Russian. When spoken by Estonians the Russian stressed syllables are treated as long. E.g.
As can be seen (1) monosyllables and final stressed syllables (cf. /mâmm/ in /domäm/) are strong; (2) the initial stressed syllable in bisyllables is (a) weak if the 2nd syllable ends in a single vowel or in obstruents (/tt/ in our examples, cf. also /znaajesš/ 'you (sg.) know', /viidišš/ 'you (sg.) see') and (b) strong if the 2nd syllable ends in a diphthong or in a sonorant; (3) the initial stressed syllable in trisyllables is (a) weak if the 2nd syllable is closed (e.g. /znaajette/ 'you (pl.) know', /viiditšte/ 'you (pl.) see'; this closedness does not stem obligatorily from Russian, cf. Russian /znajete/, /vijdite/) and (b) strong if the 2nd syllable is open.

2. In speaking German, Estonians usually have geminate consonants where double consonant letters, exc. bb, dd, gg, are written. The accent assignment can be illustrated as follows.

<table>
<thead>
<tr>
<th>'hear'</th>
<th>höoren</th>
<th>höore</th>
<th>höörtt</th>
<th>höörtte</th>
</tr>
</thead>
<tbody>
<tr>
<td>'to hear'</td>
<td>'I hear'</td>
<td>'he hears'</td>
<td>'he heard'</td>
<td></td>
</tr>
<tr>
<td>'ask, beg'</td>
<td>bitten</td>
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<td>'lead'</td>
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<td>dat.pl.</td>
</tr>
<tr>
<td>'mountain'</td>
<td>bêrg</td>
<td>berge</td>
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<tr>
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<td>naame</td>
<td>naamens</td>
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</tr>
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<td>hauses</td>
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<tr>
<td>'first'</td>
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</tbody>
</table>

Here (1) monosyllables are strong; (2) the stressed syllable in bisyllables is (a) weak if the 2nd syllable is
open or ends in an obstruent and (b) strong if the 2nd syllable ends in a sonorant; (3) the stressed syllable in trisyllables is (a) weak if the 2nd or the 3rd syllable is closed (cf. /höörerin/ 'listener, fem.') and (b) strong if the 2nd and the 3rd syllable are open. Note the case of /naamens/ where the 2nd syllable ends in a cluster of a sonorant and an obstruent.

3. For a further improvement of the accent assignment rules foreign names are considered. It appears, first, that cases like /naamens/ in the previous section are in no ways exceptional. cf. /kellertt/ (Gellert), /jaspers/ (Jaspers), /laatsis/ (Lacis).

Second, there is a set of bisyllabic names ending in a single vowel or an obstruent where the initial syllable, nevertheless, is strong; all such names have an internal cluster of any consonant + sonorant that is preceded either by a diphthong or by another consonant, e.g. /hváitra/ (Phaidra), /hváitros/ (Phaidros), /intra/ (Indra), /ëttra/ (Eta), /käppri/ (Capri), /küppros/ (Küpros). Some names vary depending on their similarity to substantives or more common names, e.g. /këller/ ~ /keller/ (Geller, Keller), cf. dialectal /keller/ 'cellar'. There is considerable variation in case of bisyllabic names ending in -us; this variation is related to the existence of derivational substantives in Estonian which end in -us in the nominative and have unpredictably either the weak or the strong first syllable (and for a number of substantives both the weak and the strong initial syllables are used).

4. All the cases of occurrence of weak and strong syllables, or otherwise: of non-assignment and assignment of the grave accent established above are directly comparable with those in the nominative singular of substantives and proper names in Estonian.

Nominative singular forms in Estonian include all
possible types of (stressed) monosyllables. This is not the case for any other inflectional forms. Note that in stressed monosyllables the grave accent is obligatory.

Likewise the grave accent is obligatory in open bisyllables with an internal cluster of a consonant and a sonorant that is preceded by a diphthong or another consonant. Other bisyllables with an open 2nd syllable when occurring as the nominative case forms of substantives or proper names have a weak initial syllable. What is especially important, the bisyllables with an open 2nd syllable and a strong initial syllable, except those mentioned first having an obligatory grave accent, do not occur as nominative singular forms of substantives (there are including the archaic and dialectal stems, 13 exceptions from this rule) although this is the original form of bisyllabic stems subject to grade alternation. For bisyllabic nominative singular forms with a final sonorant and a long initial syllable, except for about 35 stems which belong to 7 different unproductive declension types, the initial syllable is strong. The corresponding bisyllabic forms with a weak initial syllable, as a rule, denote other inflectional forms.

For trisyllabic nominative case forms with long initial syllables and with closed 2nd or 3rd syllables the initial syllable is weak if the 2nd syllable does not have the secondary stress, while in case of the open 2nd and 3rd syllables it is weak only in derivatives of the genitive or plural stems.

Hence the accent assignment when speaking foreign languages and in foreign names accords with that in most productive and less specific types of the nominative singular in Estonian. This must be taken into account when dealing with iconicity and the marked vs. unmarked character of syllable strings in Estonian.
References


1. It has often been pointed out that most of quite usual sentences, such as

(1) The cat frightened the dog.

are semantically ambiguous. The different meanings of (1) become evident in the following paraphrases:

(2) The one who frightened the dog was the cat.
(3) The one whom the cat frightened was the dog.

That these sentences do not convey the same meaning can be shown by the following context:

(4) Jolanthe does not believe that the one who frightened the dog was the cat.
(5) Jolanthe does not believe that the one whom the cat frightened was the dog.

Sentences (4) and (5) describe different situations. In the case of (4) Jolanthe knows that someone frightened the dog but does not know who it was, and she does not believe that it was the cat. In the case of (5) Jolanthe knows that the cat frightened someone but does not know whom, and she does not believe that it was the dog.

2. The description of sentences that brings forth the semantic difference discussed above is usually called functional, since it does not rely solely on the syntactic structure of sentences but takes into account also the function that the parts of the corresponding sentences play in communication. The difference between the described interpretations of (1) depends, as can be clearly seen, on which part of it is considered as presenting the known information and which part as carrying the new information that the speaker intends to tell the hearer. The division of a sentence according to such criteria is generally referred to as topic-comment or theme-rheme analysis (we are
certainly conscious of the fact that often the old - new division on the one hand and the topic - comment or theme - rheme division on the other are considered as two different divisions; but for the purposes of the present study this distinction is not very significant). In the case of our sentence (1), for instance, the cat frightened is topic and the dog comment, if the sentence is regarded in the interpretation that corresponds to paraphrase (3); but if it is regarded in the interpretation corresponding to paraphrase (2), then, on the contrary, the cat is comment and frightened the dog topic.

The described approach has not been very popular in the current theories of semantics; particularly in the semantic theory of generative grammar. For some time past, however, there has been a remarkable growth of interest in the functional aspects of language. We refer to V. Yngve, for instance, who has expressed the opinion that only communication can serve as the context in the frames of which it is possible to unite all the diverse and contradicting theories that are currently developing in linguistics (Yngve 1969).

The linguistic school where much attention is given to the phenomena under discussion is the Prague school of linguistics. Here the functional approach to language has always been in the centre of interest. This is true also of the version of generative grammar that has developed in Prague and is connected, first of all, with the name of P. Sgall.

One of the most remarkable results achieved by the Czech linguists in the functional analysis of sentences can be summarized as the following: it is not appropriate to divide a sentence just into two parts - topic and comment, or theme and rheme. Instead, it is necessary to use a whole scale or hierarchy into which the words of a sentence can be ordered according to the novelty of the conveyed information. Such a phenomenon is called communicative dynamism. For instance, take the sentence
(6) I have to talk to Kiur about our journey. Here in the usual interpretation I has the lowest degree of communicative dynamism and our journey the highest, while the other components are ordered in such a way that to Kiur has more communicative dynamism than to talk, to talk more than have. This is not, of course, the only interpretation; also other interpretations are possible. But the important point is that in every such interpretation we have to do with a certain order. The idea of communicative dynamism belongs originally to the Czech linguist J. Firbas. Now it has been accepted also by P. Sgall who is trying to incorporate it into his model of generative grammar.

3. How to represent the described phenomena explicitly in the semantic descriptions of sentences? There have been many suggestions mostly trying to explain these phenomena through the positions of the corresponding items in a sentence. P. Sgall departs from the fact that in most languages the hierarchy of communicative dynamism is expressed in surface structure by word order: the tendency is to place the less communicative items at the beginning of the sentence, the more communicative items at the end. We have seen it already in sentence (6). On these grounds P. Sgall has suggested that also in semantic representations (resp. in deep structures) of sentences the communicative dynamism of items should be expressed by their relative order (Sgall 1972). According to this from the structure

\[
(7) (s_{\text{acorn}})_{\text{ORIGIN}} (\text{develop})_{\text{PRED}} (s_{\text{oak}})_{\text{GOAL}} \]

we could derive such sentences as

(8) The acorn develops into an oak.
(9) An oak develops out of the acorn.

but not, e.g.
(10) An oak develops out of the acorn.

The deep structure for the last sentence would be, instead:

\[
(11) (s_{\text{oak}})_{\text{GOAL}} (\text{develop})_{\text{PRED}} (s_{\text{acorn}})_{\text{ORIGIN}} \]

44
At this stage the question arises what is explained by this treatment? Although sentences with different functional partition obtain different deep structures according to this treatment it does not explain the semantic nature of the above phenomena. As we have said, the functional partition of sentences departs, first of all, from the function language plays in conveying information from the speaker to the hearer. But what does the solution described above say about how language can fulfil this function? Why does the order of items in a sentence appear so significant from this point of view? And why just this order?

4. In the functional approach every sentence is analysed as a message. And the criterion for dividing a sentence into definite parts is, as already stated, the role the corresponding component plays in carrying information to the hearer. The concept of communicative dynamism, as we understand it, is intended to express the idea that a sentence is a complex message; every item (word) in it carries a definite piece of information, and these items are ordered in such a way that every new item in the sequence adds its information to the information already conveyed by the preceding items. But this means that every new item contains a new message. The explicit description of the functional structure of a sentence should be, accordingly, a sequence of messages and not merely words. Every single message in this sequence should explicitly bring forth not only the new information that is carried by the corresponding item but also that part or aspect of the old information to which the new information is added. Every message is made up, consequently, of a part that presents the new information and of a part that presents that part of the known information to which the new information is to be added. The new information is carried by the corresponding new item. The known information, to
which the new information is to be added, is made up of (some part of) the information conveyed by the preceding items. If we take, for instance, sentence (6) in the above interpretation, the sequence of messages corresponding to it could be (informally) presented as follows:

(12a) I have to do something.
(b) What I have to do is to talk to somebody about something.
(c) The one to whom I have to talk about something is Kiur.
(d) What I have to talk about to Kiur is our journey.

On the ground of the given informal presentation it is possible to make also a few inferences about the more formal properties of such messages. In each of the messages (12b) - (12d) - which present the basic type of messages - the subject contains some pro-form (what, the one, what). But this pro-form always represents a definite semantic category that remains implicit in the sentences chosen above to present the corresponding messages. When we replace the pro-forms by the corresponding categories we discover an interesting fact: the subject and predicate of a message are always "dominated" by one and the same general semantic category. For instance, the messages (12b) - (12d) could be given in the following more explicit form:

(12b') The ACTIVITY I have to carry out is the ACTIVITY-of-talking-to-somebody-about-something.
(c') The PERSON to whom I have to talk about something is Kiur-PERSON.
(d') The PROBLEM about which I have to talk to Kiur is the PROBLEM-of-our-journey.

We may say that every message represents a definite operation of adding new information. The category that dominates the subject as well as the predicate presents the
category in the frames of which this operation is carried 
cut. The operation itself consists, as we see, in concreti-
ization a definite aspect in the general category. The inform-
ation of the subject and predicate is united and as a re-
sult we have the same general category, but now it contains 
the information that was contained in the subject (this is 
the old information) as well as the information that was 
contained in the predicate (this is the new information).

As a result of message (12b') the hearer knows about the 
corresponding activity the fact that the speaker has to car-
y it out as well as the fact that it consists in talking to 
someone about something; as a result of message (12c') the 
hearer knows about the corresponding person the fact that 
the speaker has to talk to him as well as the fact that his 
name is Kiur; etc.

Finally we would like to point out one more advantage 
of analyzing sentences into sequences of messages and not 
merely of words: in this case it is possible to take account 
also of other material beyond that is presented immediately 
by words. In particular, as it appears, the concept of the 
sequence of messages is connected in a definite way with such 
a semantic notion as the concept of presupposition. It ap-
ppears, namely, that the sequence of messages that corresponds 
to a sentence is built up, as a rule, in such a way that 
every single message in this sequence (except the last one) 
functions with respect to some of the following messages as 
one of its presuppositions. For instance, from message (12b) 
as well as from its negation (= What I have to do is not 
(that I have) to talk to someone about something) follows 
logically that I have to do something, i.e. message (12a).
From message (12c) as well as from its negation (= The one 
to whom I have to talk about something is not Kiur) follows 
that I have to talk to someone about something, i.e. message 
(12b). Etc.
ON THE RULES OF THE ESTONIAN SECONDARY VERB SYNTAX

Ellen Uuspõld

1. The primary verb syntax treats the possibilities the predicative verb has for attaching secondary parts of a sentence, i.e. describes sentence patterns whose centre is a finite form of the verb. The secondary verb syntax treats verbal constructions whose centre in the Estonian language may be either an infinite form of the verb or a derivative which has preserved the government structure of the stem verb. Such constructions occur in the sentence as the subject, the attribute or the secondary part of a sentence belonging to the verb, e.g.

(1) Vajalik on koopia võrdlemine originaaliga. 'The comparison of the copy with the original is necessary.'

(2) Koopiat originaaliga vörrelnud ametnik avastas vee. 'The clerk who had compared the copy with the original round a mistake.' (The having compared the copy with the original clerk round a mistake.)
(3) Koopiat originaaliga võrreldes avastas ametnik vea.

'Comparing the copy with the original, the clerk found a mistake.'

2. A sentence with a secondary verbal construction may be described as the result of the introduction of a starting sentence (constituent sentence) into another (matrix sentence). The introduced starting sentence is subject to double changes - structural and formal ones. Thus the part of syntax describing secondary verbal constructions should include double rules: 1) structural rules reflecting the structural differences and 2) formal rules reflecting the formal differences of these constructions in comparison with the starting sentence.

3. The structural rules of secondary verbal constructions reflect firstly the elimination cases accompanying the introduction. The elimination occur in the case of the identity of certain elements of starting sentences. The elimination of the subject of the starting sentences has occurred, for example, in the des-construction of sentence (3) as the subject of the constituent sentence was identical to the subject of the matrix sentence (Ametnik võrdles koopiat originaaliga. Ametnik avastas vea. 'The clerk compared the copy with the original. The clerk found a mistake.').

Secondly, these rules reflect structural limitations which become evident if to compare the government structure of the predicative verb with the possibilities which the verb has for attaching secondary parts of a sentence in different secondary constructions. For instance, in the case of the verb võrdlema 'compare' the different subject of the starting sentence cannot be expressed in the des-construction. Compare, for example, following sentence with sentence (3):

(4) *Ametniku võrreldes koopiat originaaliga klient ootas.

'The clerk comparing the copy with the original, the client was waiting.'
4. In all cases the predicate of the starting sentence which is transformed into the main word of the construction is subject to formal changes. The possible forms of it depend on the position of the introduction in the matrix sentence (e.g. the possible forms of the main word of the attributive construction in Estonian are the v-, nud-, tav-, tud-participle, the infinitival forms -da and -mata, also the adjective with the suffix -matu).

The subject and object of the starting sentence are also subject to special formal rules in case they are not eliminated when introduced. Their form depends on the form of the main word of the construction (e.g. in the v-participle construction the subject of the starting sentence has been eliminated and the object may occur in the partitive case only; in the tud-participle construction the object of the starting sentence has been eliminated and the subject has according to special rules been transformed into the agent adverbial in the genitive, adessive, elative case or in the form of the genitive + postposition poolt).

In the case of nominalization the adverb belonging to the predicative verb is transformed into the adjective (e.g. saabutakse hilja ➔ hiline saabumine '(they) arrive late ➔ late arrival').
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ABBREVIATIONS


KS - Keel ja struktuur. Töid struktuuralse ja matemaatilise lingvistika alalt. Tartu.

ВСФУ - Вопросы советского финно-угроведения. Языкознание. (Тезисы докладов и сообщений на ХIУ Всесоюзной конференции по финно-угроведению, посвященной 50-летию образования СССР), Саранск.

СФУ - Советское финно-угроведение.
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. Erelt, pigem(ini) - enne(m(ini)) - rohkem</td>
<td>3</td>
</tr>
<tr>
<td>'rather - sooner'</td>
<td></td>
</tr>
<tr>
<td>M. Hint, On Handling Morphological Exceptions</td>
<td>6</td>
</tr>
<tr>
<td>R. Kasik, On Different Conceptions of Case Grammar</td>
<td>13</td>
</tr>
<tr>
<td>A. Krikmann, On Operations with good and bad</td>
<td>15</td>
</tr>
<tr>
<td>H. Niinemägi, On Functional Analysis in the Group of Parallelism</td>
<td>23</td>
</tr>
<tr>
<td>M. Remmel, The Hjelmanelevs, Johanne Trolle and Louis Trolle</td>
<td>25</td>
</tr>
<tr>
<td>H. Rätsep, The Syntactic Characterization of the Estonian Modal Verbs</td>
<td>26</td>
</tr>
<tr>
<td>M. Remmel, Some Typological Analyses in the Phase Space of Language Dynamics</td>
<td>30</td>
</tr>
<tr>
<td>J. Valge, Some Word Sets of Various Sections of Sublanguages in Newspapers</td>
<td>31</td>
</tr>
<tr>
<td>U. Viike, On the Semantic Types of the ise-Sentences in Estonian</td>
<td>35</td>
</tr>
<tr>
<td>T.-R. Viitso, Accent Specialization in Estonian</td>
<td>37</td>
</tr>
<tr>
<td>H. Öim, Semantics and Functional Description of Sentences</td>
<td>42</td>
</tr>
<tr>
<td>Selected Bibliography</td>
<td>51</td>
</tr>
</tbody>
</table>
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