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#### ABSTRACT

There are two problems in the Estonian phonology, solutions of which are
typically non-unique - quantity and palatalization. Both contrasting quantity
and palatalization occur in stressed
syllables and affect morphophonology.
The non-unique interpretations of quantity and palatalization reflect various
phonemic qualities of these phenomena.

#### QUANTITY

The scheme of phonological analysis should give a classification of syllables with regard to their segmental and prosodic structure.

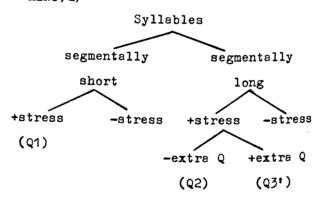
In the recent years several new schemes and descriptions of Estonian prosody have been presented. These schemes express differing conceptions of their authors about this complex subject. Leaving aside the descriptive adequacy of different schemes, it is possible to examine their phonetic naturalness.

The following principles are involved:

(1) the binary branching is more natural than a tertiary one; (2) prosodic modification of long syllables is more natural than the modification of short syllables; therefore, it is more natural to give segmental specifications of a syllable before the prosodic analysis, not vice versa.

The following is an attempt to estimate some schemes of prosodic analysis of Estonian from these points of view.

HINT/2/



Types of syllables:

- (1) short stressed syllables (Q1);
- (2) long stressed syllables (Q2);
- (3) long stressed syllables with an extra quantity (tense pronunciation, Q3);
- (4) short unstressed syllables;
- (5) long unstressed syllables.

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Examples:

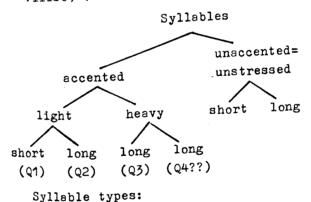
to fishing one goes in the evening'

2 5 3 5 2 5

karjus 'karjus metsas'
shepard shouted in the wood'

In this scheme the phonological stress and quantity are treated as two separate prosodic phenomena, the phonemic stress being a precondition for quantity distinction in long syllables /2/; +stress may be either a main or a secondary stress (this additional branching does not affect the system of quantity contrasts).

VIITSO/4/



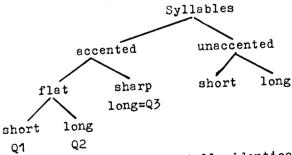
(1) short light-accented (Q1) syllables;

- (2) long light-accented (Q2) syllables;
- (3) long heavy-accented (Q3) syllables;
- (4) long extra heavy accented (Q4) syl.;
- (5) short unaccented syllables;
- (6) long unaccented syllables.

In this scheme stress and quantity are incorporated into a unique prosodic complex - accent. There appear to be some inherent difficulties in this scheme:

- (1) all the stressed syllables are accented, but if there is a difference between the main and secondary stress, and if both the accents and stresses are unpredictable within the word, then it follows that the number of accents should be doubled according to the number of stress degrees (main and secondary stress);
- (2) long syllables need for their three different accents tertiary branching if the first differentiation in this scheme were between short and long syllables, then the long syllables would clearly need tertiary branching;
- (3) Q4 has been suggested by Tiit-Rein Viitso for several years but it has not been proved experimentally (descriptive inadequacy); it seems that this doubtful quantity (accent) degree does not fit into an ordinary prosodic scheme, either; without Q4 the scheme would look much more plausible.

EEK & HELP/1/



This scheme is essentially identical with the Viitso's analysis, except the terminology, and Q4 which Eek and Help have abandoned as unsubstantiated. During many decades this scheme has been sug-

gested by Valter Tauli (whose terms were light and heavy stress, cf. /3/).

The comparison of these conceptions underlines the following pecularities of Estonian prosodic system:

- (1) there are both short and long syllables with light accent (lax pronunciation); this is the main point in the schemes by Valter Tauli, Tiit-Rein Viit-so, and Arvo Eek & Toomas Help; in Hint's conception these syllables are considered to be unmarked in respect of syllabic quantity;
- (2) short syllables do not participate in quantity contrasts; this is most distinctly revealed in Hint's scheme;
- (3) it is possible to interpret the Estonian prosody as having only one accent or extra syllabic quantity (Q3); this is best revealed in the scheme by Arvo Eek and Toomas Help; in Hint's conception this is expressed by specially marked +extra quantity;
- (4) extra syllabic quantity is possible only in long stressed syllables; this is clearly pronounced in Hint's conception.

### PALATALIZATION

Palatalization in Estonian is a phonological correlation (in Trubetzkoy's terminology) of limited positional occurence. Its realization in different Estonian dialects brings forth the different espects of its phonological nature.

The palatalization in Estonian is characterized by the following:

- (1) the list of palatalizing consonants varies greately in different dialects: in South Estonian dialects /p m t n s l r k/may be palatalized; in North Estonian dialects palatalization occurs only in dental consonants; Standard Estonian palatalizes /t s l n/; there is no palatalization in the Northern Costal dialect;
- (2) the pattern of palatalization before /-i/ or /-j/ differs in various dialects: in the Mulgi dialect (South Estonia) and in the Islands' dialect there is no palatalization before an overt /-i/ or /-j/; in other dialects there is an automatic palatalization before /-i/ and /-j/

These differences cause great variations in the functional load of palatalization in different dialects. At the same time, the palatalization or non-palatalization before /-i/ and /-j/ is an overt reflection of various phonemicizations of palatalization, that is, whether in a position before /-i/ or /-j/ the phonetic palatalization represents a palatalized or non-palatalized phoneme.

It is easy to see the morphophonemic consequences of one or another interpretation. Compare, for example, the pattern of palatalization in the word kast 'box'.

In Standard In Islands'

Estonian dialect

Nom. sg. /'kast/ +pal /'kast/ +pal

Gen. sg. /kasti/ +pal /kasti/ -pal

Part. sg. /'kasti/ +pal /'kasti/ -pal

Part. pl. /'kaste/ +pal /'kaste/ +pal

The palatalization in Estonian deserves attention for its low functional load. The following table illustrates the percentage of palatalized consonants in the only position where distinctive palatalization occurs - in the position after a nucleus of main-stressed (first) syllable (where both single consonants and the first components of consonant clusters may be palatalized: /'klaase/, /'lol'le/, /'kaste/).

The data are based on a statistically reliable sample of literary texts (total of 14.563 words: Q1 - 4.249, Q2 - 2.898, Q3 - 7.416).

In the table +pal max stands for maximum count of palatalization, that is, palatalized segments are interpreted before /-i/ and /-j/ and elsewhere as realizations of palatalized consonants;

+pal min indicates minimum count of palatalization, that is, automatic palatalization before /-i/ and /-j/ is interpreted as realization of non-palatalized consonants;

-pal min presents percentage of nonpalatalized counterparts of this phonological correlation.

In the table only +pal min represents distinctive palatalization; its rate in Q1 and Q2 words is practically zero.

## Palatalization percentage

/t/ /s/ /n/ /l/  $\Sigma$ 2.2 7.0 13.2 Q1 +pal max 0.6 3.4 8.8 14.5 34.7 -pal min 8.0 3.4 2.1 5.5 11.6 Q2 +pal max 1.9 2.1 -pal min 11.3 6.2 13.2 16.6 47.3 2.0 6.4 Q3 +pal mex 1.0 2.0 1.4 .27 1.15 .46 .14 +pal min .28 -pal min 17.1 13.9 10.2 10.0 51.2 Both ways of counting may be of interest for the low reading of palatalization. In spite of this there is no tendency to eliminate the palatelized consonants from the phonemic inventory of Estonian. In the lexical system the pala-

talized consonants obviously have more

pronounced role (contrasts such as tall

'lamb' and tal'l 'stable', kott 'large

## REFERENCES

shoe' and kot't 'sack').

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428-440.

/3/ Valter Tauli, "Standard Estonian Grammar". Part I. Uppsala 1973.

/4/ Tiit-Rein Viitso, "Laanemeresoome fonoloogia küsimusi". Tallinn 1981.