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THE SEMI-VOWELS [j] AND [ɰ] IN THE PHONOLOGICAL AND MORPHOPHONOLOGICAL SYSTEMS OF ESTONIAN. II

The semi-vowels [j] and [ɰ] in the morphophonological system of Estonian

2.0. The problem concerning the use of several differing phonological interpretations in the morphological description of word inflection presents considerable difficulties since one will have to take into consideration different types of inflection and different morphophonological processes both in words and types with consonant mutation and quantity alternation as well as in words and types without grade alternation. The following represents but a sketch of a possible method of treating those problems, in connection with the phonological interpretations of the Estonian semivowels [j] and [ɰ]. A full account of the subject can be elaborated only in a description of the entire morphology.

In the present treatment we assume that the item and process method is the most suitable one for the description of Estonian word inflection.

Here we have once more to recur, in brief, to the intricate question of the relation between phonological and phonetical transcription. That question will be discussed further on as well (see 2.5), and here we shall mention but the basic principle: the traditional phonetic transcription and the traditional autonomous (taxonomic) phonological transcription are variants of one and the same type of transcription, they belong to the same class of transcriptions and the difference between the two consists in the method and not in the principle. In some cases, the clearer and more systematic phonological transcription may seem preferable, and in others — the detailed phonetic transcription. It is possible to elaborate several variants of either kind of transcription, and, likewise, it is possible to devise intermediate transcriptions between the two kinds (e. g., the simplified phonetic transcription applied in Estonian dialectology). All those systems of transcription may be coordinated with each other by using simple rewrite rules. So as to adhere to this principle in the subsequently presented fragments of morphology, the morphophonologically written word forms will be linked with the two basic transcriptions: the first one is named the phonological transcription, and the second one — the simplified phonetic transcription. In the former the automatic [ɰ] and [j] are always written as the syllable-boundary phoneme /j/, and in the latter according to their phonetic values, as /w/ and /j/, respectively. Neither transcription marks a syllable- or word-final /w/ or /j/. Those transcriptions represent the third and the fourth phono-

logical solution, respectively, of the problem (cf. 1.5 in the first part of this article). Those transcriptions are interconnected in the following manner: the third transcription is changed into the fourth transcription with the help of the formulae (20a) and (21a), and, vice versa, with the help of the same formulae in the inverted form (20b and 21b):

$$\begin{array}{ll}
 (20a) & 3 \rightarrow 4 : /,/ \rightarrow /w/ \left\{ \left\{ \begin{array}{l} Vu \\ \end{array} \right\} - \left\{ \begin{array}{l} a \\ \end{array} \right\} \right\} \\
 (20b) & 4 \rightarrow 3 : /w/ \rightarrow /,/ \left\{ \left\{ \begin{array}{l} Vu \\ \end{array} \right\} - \left\{ \begin{array}{l} e \\ \end{array} \right\} \right\} \\
 (21a) & 3 \rightarrow 4 : /,/ \rightarrow /j/ \left\{ \left\{ \begin{array}{l} Vi \\ \end{array} \right\} - \left\{ \begin{array}{l} a \\ e \\ \end{array} \right\} \right\} \\
 (21b) & 4 \rightarrow 3 : /j/ \rightarrow /,/ \left\{ \left\{ \begin{array}{l} Vi \\ \end{array} \right\} - \left\{ \begin{array}{l} e \\ u \\ \end{array} \right\} \right\}
 \end{array}$$

2.1. The problem of automatic syllable-initial [w] and [j] arises in several inflectional types. Let us first of all discuss the types with quantity alternation

'lai : laia : 'laia and *'sau : saua : 'saua*

which, according to "Õigekeelsuse sõnaraamat" (Tallinn 1960; = ÖS), belong to the inflectional type 69, together with words like *karv* 'hair', *kaer* 'oats', *vaal* 'whale', *vill* 'wool', etc. In essence, the words attributed by ÖS to type 62 are inflected analogically, the difference being of a purely orthographical nature (*kapp : kapa : kappa* 'piggin', *vakk : vaka : vakka* 'bushel').

The belonging of words to one and the same inflectional type presupposes identical rules for the derivation of inflected forms. The strong-grade Partitive Singular may in most cases be regarded as the most suitable basic form for the derivation of other inflected forms of words with grade alternation (and particularly, of those with quantity alternation). The principal forms of the singular are obtained from the basic form, in the case of the inflectional type under discussion, as follows (in phonological transcription; /' marks the third phonological degree of quantity):

Table 2:1

Basic form — Part. Sg.	Gen. Sg. /'/ → ∅	Nom. Sg. V → ∅ /- #/
'kaera	kaera	'kaer
'vaala	vaala	'vaal
'villa	villa	'vill
'karva	karva	'karv
'vakka	vakka	'vakk

The Genitive is derived from the Partitive by omitting the marker phoneme of overlength (the third quantity degree), and the Nominative, likewise from the Partitive by omitting the final vowel.

The other words of this inflectional type, too, including those with a phonological structure such as *lai* and *sau*, ought to fit into the inflectional scheme presented above. In the case of words with deviating phonological structure, automatic morphophonological rules may be applied in order to obtain the phonological representations from the morphophonological representations of the inflected forms (which result from applying morphological rules or processes to the basic form). Those morphophonological rules are, indeed, necessary in the case of such words as *lai* and *sau*.

In this article we proceed from the standpoint that one concrete phonological transcription may be chosen for the description of any particular morphological inflection type for which it is the best suited.

A set of phonological transcriptions may cover the description of the entire morphological system.¹ The connections between the morphophonological and phonological-phonetic levels (resp. between the corresponding representations) may then be defined with the help of simple rules. The words containing automatic [w] and [j] should not complicate either the description of the morphological inflectional types or the relations between the morphophonological and phonological-phonetic levels to any greater extent than by the addition of the above-mentioned special context-sensitive morphophonological rules covering those relations. The rules applying to [w] and [j] should be common to both, or of a possibly similar structure.

In the subsequent discussion, the broken diagonals $\sqrt{\quad}/\quad$ will point to the morphophonological treatment, and the obliques // to the phonological treatment of transcription. Brackets will not be used in tables, and the forms used in orthography will be likewise quoted in italics without brackets.

The possibilities of representing the basic form, the Part. Sg., of the adjective *lai* and the forms derived from this basic form by means of morphological rules applied in the inflectional type 69 (cf. Table 2:1) are presented in the following paradigms.

Table 2:2

Transcription	Basic form — Part. Sg.	Gen. Sg. // → ∅	Nom. Sg. V → ∅ / - # /	Nom. Sg. form as stipulated by transcription
1.	' <i>laija</i>	<i>laija</i>	' <i>laij</i>	' <i>lai</i>
2.	' <i>laiia</i>	<i>laiia</i>	' <i>laii</i>	' <i>lai</i>
3.	' <i>lai, a</i>	<i>lai, a</i>	' <i>lai,</i>	' <i>lai</i>
4.	' <i>laija</i>	<i>laija</i>	' <i>laij</i>	' <i>lai</i>
5.	' <i>laija</i>	<i>laija</i>	' <i>laij</i>	' <i>laij</i> *
6.	' <i>lajja</i>	<i>lajja</i>	' <i>lajj</i>	' <i>lajj</i> *

A similar table for the word *sau*, belonging to the same inflectional type, would look as follows:

Table 2:3

Transcription	Basic form — Part. Sg.	Gen. Sg. // → ∅	Nom. Sg. V → ∅ / - # /	Nom. Sg. form as stipulated by transcription
1.	' <i>sauva</i>	<i>sauva</i>	' <i>sauv</i>	' <i>sau</i>
2.	' <i>sauua</i>	<i>sauua</i>	' <i>sauu</i>	' <i>sau</i>
3.	' <i>sau, a</i>	<i>sau, a</i>	' <i>sau,</i>	' <i>sau</i>
4.	' <i>sauwa</i>	<i>sauwa</i>	' <i>sauw</i>	' <i>sau</i>
5.	' <i>sauwa</i>	<i>sauwa</i>	' <i>sauw</i>	' <i>sauw</i> *
6.	' <i>sawwa</i>	<i>sawwa</i>	' <i>saww</i>	' <i>saww</i> *

* In the transcriptions No. 5 and No. 6 [j] and [w] are interpreted as consonants, therefore words like *lai* or *sau* (respectively '*laij*' or '*lajj*' and '*sauw*' or '*saww*') are in this interpretation phonologically wholly parallel to words like *kaer* or *vill*.

In order to obtain in the derived forms the outputs which correspond to the transcription method in question, one has to apply morpho-

¹ Cf. M. Хинт, Создание морфофонологической транскрипции для описания морфологии эстонского языка. — СФУ V 1969 1, pp. 3—17.

phonological rules in the case of variants 1—4. Those rules do not represent morphological processes, but are merely instructions for putting down the words in relevant phonological transcription, they connect the morphophonological and phonological representations.

In the case of transcription No. 1 the following morphophonological rules have to be applied:

$$(22) \quad \begin{array}{l} /j/ \rightarrow \emptyset /Vi - \#/, \\ /v/ \rightarrow \emptyset /Vu - \#/. \end{array}$$

(The rule $/j/ \rightarrow \emptyset /Vi - \#/$ cannot be formulated in the briefer form $/j/ \rightarrow \emptyset / - \#/$ since the morphophonological rule $/j/ \rightarrow i/C - \#/$ is necessary in paradigms like

$$\begin{array}{l} /'asja : /asja/ : /'asj/ \rightarrow /asi/ \text{ 'thing' or} \\ /'karja/ : /karja/ : /'karj/ \rightarrow /kari/ \text{ 'herd',} \end{array}$$

which have been obtained according to the same scheme applied for deriving the main inflected forms of the inflectional type 69. Note the complete parallelism of the two subrules in (22) too.)

The first transcription is connected with the third by the following rewrite rules:

$$(23) \quad \begin{array}{l} /j/ \rightarrow /, / /Vi - V/, \\ /v/ \rightarrow /, / /Vu - V/. \end{array}$$

the rule modifying transcription No. 1 into transcription No. 4 being

$$(24) \quad /v/ \rightarrow /, \omega/ /Vu - V/.$$

Transcription No. 2 requires the following morphophonological rules:

$$(25) \quad \begin{array}{l} /i/ \rightarrow \emptyset /Vi - \#/, \\ /u/ \rightarrow \emptyset /Vu - \#/. \end{array}$$

This transcription may be connected with the third transcription by the rules

$$(26) \quad \begin{array}{l} /i/ \rightarrow /, / /Vi - V/, \\ /u/ \rightarrow /, / /Vu - V/, \end{array}$$

and with transcription No. 4 — by the rules

$$(27) \quad \begin{array}{l} /i/ \rightarrow /j/ /Vi - V/, \\ /u/ \rightarrow /v/ /Vu - V/. \end{array}$$

In the case of transcription No. 3 we have the morphophonological rule

$$(28) \quad /, / \rightarrow \emptyset / - \#/.$$

The third and fourth transcriptions are connected by the already quoted rules (29)

$$(29) \quad \begin{array}{l} /, / \rightarrow /j/ /Vi - V/, \\ /, / \rightarrow /v/ /Vu - V/. \end{array}$$

Transcription No. 4 makes use of the morphophonological rule

$$(30) \quad \left\{ \begin{array}{l} /j/ \\ /v/ \end{array} \right\} \rightarrow \emptyset /V - \#/.$$

It is connected with transcription No. 3 by the rules

$$(31) \quad \begin{array}{l} /j/ \rightarrow /_2/ \ /Vi - V/, \\ /w/ \rightarrow /_2/ \ /Vu - V/, \end{array}$$

which represent an inversion of the rules (29).

In the case of transcription No. 5 the rules are required which connect the representations in this transcription with the other transcription modes. In this transcription as well as in transcription No. 6 both /j/ and /w/ are treated as consonants that may occur at the word-end, and therefore the transcriptions /'laij/ and /'laɟj/ or /'sauw/ and /'saww/ are also phonological and not only morphophonological representations. Transcription No. 5 is connected with transcription No. 3 by the rules (31) and (30), and with transcription No. 4 — by the rules (30).

In the case of transcription No. 6, special rules are needed, likewise, to connect it with other transcription variants. It can be modified into transcription No. 3 by using the rules (32) and (33):

$$(32) \quad \begin{array}{l} /jj/ \rightarrow /i/ \ /V - V/, \\ /ww/ \rightarrow /u/ \ /V - V/, \text{ and} \end{array}$$

$$(33) \quad \begin{array}{l} /jj/ \rightarrow /i/ \ /N - \#/, \\ /ww/ \rightarrow /u/ \ /N - \#/, \end{array}$$

while the rules (33) and (34) are applied for turning it into transcription No. 4:

$$(34) \quad \begin{array}{l} /j/ \rightarrow /i/ \ /V - jV/, \\ /w/ \rightarrow /u/ \ /V - wV/. \end{array}$$

(The last-quoted rule may also be formulated as

$$(34a) \quad \begin{array}{l} /jj/ \rightarrow /ij/ \ /V - V/ \text{ and} \\ /ww/ \rightarrow /uw/ \ /V - V/ \end{array}$$

for achieving as stereotypical a form as possible, with regard to the other rules; however, this is a purely technical aspect which can be left out of consideration in the present paper.)

Thus much about morphophonological rules connected with the use of transcriptions discussed and the interrelations between those transcriptions.

From the above rules it may be concluded that all the possible and meaningful transcriptions are by far not equally suited for describing the inflectional type No. 69 of the OS. When dealing with the words *lai* 'wide' and *sau* 'staff' (as well as *vai* 'pole', *sai* 'white bread', *äi* 'father-in-law', *käi* 'grindstone'), morphophonological rules should be added to the grammar, but, in case of different transcriptions, the number of the morphophonological rules required and their complicatedness (considering, e.g., the number of symbols in a rule) are by far not equal. The systems of rules that connect single phonological transcriptions with phonetic transcription are likewise different. Considering transcription No. 4 to be the nearest to the phonetic representations, we may, from that point of view, compare the rules connecting the other phonological transcriptions with that one.

No morphophonological rules are needed if transcriptions No. 5 and No. 6 are made use of; with the application of morphological rules one

would immediately obtain the output in those phonological transcriptions (correspondingly, /'laija/ : /laija/ : /'laij/, and /'sauwa/ : /sauwa/ : /'sauw/; /'lajja/ : /lajja/ : /'lajj/ and /'sawwa/ : /sawwa/ : /'saww/.)

However, in respect to transcription No. 6 the rules (33) and (34) connecting this variant with the simplified phonetic transcription No. 4 are rather more complicated than in the other cases quoted above.

The morphophonological rules (22) and (25) stipulated by the use of transcriptions No. 1 and No. 2, respectively, are relatively complicated, as well. And even if the rules (25) might be formulated in a more generalized manner, viz.

(35) $V_2 \rightarrow \emptyset / V_1 V_2 - \# /$ (/laii/ → /'lai/ and /sauu/ → /'sau/,

one must still admit that transcription No. 2 contains some difficulties of a purely phonological nature.

(As to rule (35), it is not yet general enough; as a matter of fact, there ought to be a morphophonological rule which reduces a similar vowel in morphophonological representation $\sqrt{-V_1 V_1 V_2 - \sqrt{}}$, as well; cf. cases like $\sqrt{'pooti} \sqrt{}$ → $\sqrt{'pooi} \sqrt{}$ → $\sqrt{'pooe} \sqrt{}$ → /'poel/ 'shop, Gen. Sg.' and $\sqrt{'maa} \sqrt{}$ → ... → $\sqrt{'maait} \sqrt{}$ → /'mait/ 'lands, Part. Pl.').

The simplest morphophonological rule (28) is sufficient in case of transcription No. 3, and almost as simple a rule — (30) — suffices in case we use the nearly phonetic transcription No. 4.

If morphology were restricted to the inflectional type under discussion, then, to avoid superfluous morphophonological rules in describing the morphology, one would be inclined to prefer either transcriptions No. 5 or No. 6, or transcriptions No. 3 or No. 4. However, one should not forget the fact that in case of deciding in favour of No. 5 or No. 6 the economy in rules is rather deceiving: what is economized on morphophonological rules (in connecting morphophonological representations with phonological ones), is lost on allophonic rules (in connecting phonological representations with phonetic ones, cf. rules (33) and (34), in particular). The reason why those transcriptions are preferable from the morphophonological point of view, becomes quite apparent when we take a look at the phonological (and phonetic) structure of the other words belonging to inflectional type No. 69. In that group, the following phonemic types are rather frequent:

	Partitive	Genitive	Nominative	
(36)	$\backslash(C)V_1 V_2 CV$	$(C)V_1 V_2 CV$	$\backslash(C)V_1 V_2 C$	(<i>pael</i> 'tape', <i>kael</i> 'neck'),
	$\backslash(C)V_1 V_1 CV$	$(C)V_1 V_1 CV$	$\backslash(C)V_1 V_1 C$	(<i>vaal</i> 'whale', <i>mōōn</i> 'tide'),
	$\backslash(C)VC_1 C_2 V$	$(C)VC_1 C_2 V$	$\backslash(C)VC_1 C_2$	(<i>virn</i> 'pile', <i>karv</i> 'hair'),
	$\backslash(C)VC_1 C_1 V$	$(C)VC_1 C_1 V$	$\backslash(C)VC_1 C_1$	(<i>vill</i> 'wool', <i>vinn</i> 'winch').

Orthography aside, the words belonging to inflectional type No. 62 (OS) of the structure

(37) $\backslash(C)VC_1 C_1 V : (C)VC_1 C_1 V : \backslash(C)VC_1 C_1$ (*vakk* 'bushel', *kapp* 'piggin')

are inflected in exactly the same way.

It may be readily believed that the user of the language will analyse the words *lai* and *sau*, which are inflected in the same way as those presented above, as conforming to the general phonemic type prevailing in this inflectional type, as well, and the more so since phonological analysis also presents possibilities for such an analysis. On the other hand, it can hardly be believed that the Partitive forms of the words *lai* and *sau* could be conceived as /'laiia/ and /'sauua/ (and the Genitive, corres-

pondingly, as /*laiia*/ and /*sauua*/), which interpretations are suggested by transcription No. 2. From the morphophonological point of view, only the interpretations 1, 3, 4, 5, 6 are plausible, and in the case of solution No. 3 (/ʼ*lai,a*/, /ʼ*sau,a*/) the syllable-juncture phoneme /,/ is of clearly consonantal nature. But, since transcription No. 1 (/ʼ*laija*/, /ʼ*sauwa*/) is not an optimal one from the aspect of morphophonological rules, and considering the phonemic structure of words of inflectional type No. 69, it is the transcriptions 3—6 which should be regarded as plausible phonological interpretations of the words *lai* and *sau* (and others having the same phonemic type and belonging to inflectional type No. 69, as well):

- (38) No. 3: /ʼ*lai,a*/, /ʼ*sau,a*/, cf. /ʼ*kaela*/,
 No. 4 and No. 5: /ʼ*laija*/, /ʼ*sauwa*/, " " "
 No. 6: /ʼ*lajja*/, /ʼ*sawwa*/, cf. /ʼ*villa*/.

But, from the aspect of the entire phonological and morphophonological system, transcription No. 6 should be regarded very unlikely, as well.

Analysing the functioning of the sound system of a language, one ought to pay maximum attention to those conceptions and transcriptions that are satisfactory from both the point of view of phonological and morphophonological analysis (and are in harmony with intuition). In the present case, transcription No. 3: /ʼ*lai,a*/, /ʼ*sau,a*/ and /*lai,a*/, /*sau,a*/ proves to be adequate, and its psychological plausibility is also confirmed by orthographical convention (*laiia*, *laua*). In orthography, the syllable-initial automatic [j] and [w] are likewise treated differently from nonautomatic sounds: the automatic [w] and [j] in word types like *laiia* and *saua* are not spelt, but the sound [j] is put down elsewhere as *j*. The circumstance that these syllable-boundary cases with automatic semi-vowels [j] and [w] have been given an original orthographical interpretation despite their unfrequent occurrence, seems to be a psychological argument in favour of the analyses /ʼ*lai,a*/, /ʼ*sau,a*/, and /*lai,a*/, /*sau,a*/.

2.2. Automatic [w] and [j] also occur in the weak grade forms of words with consonant mutation: [ʒe̞iʒe] 'salve, Nom.', [ne̞u̞we] 'demand, Nom.', [pøiʒa] 'metatarsus, Gen.', [la̞u̞wa] 'table, Gen.', [ra̞u̞wa] 'iron, Gen.', etc.

According to orthographical convention, the words *laud*: *laua* = [la̞u̞v]: [la̞u̞wa] 'table, Nom. and Gen. Sg.' and *nõid*: *nõia* = [ne̞i̞v]: [ne̞i̞ja] 'witch, Nom. and Gen. Sg.' belong to the same inflectional type — No. 54, according to ÖS — which is very productive (e.g. *liud* 'dish', *raud* 'iron', *haud* 'grave', *põud* 'drought', *aed* 'garden', etc.). Linguistic intuition, too, places those words into the same group; thus, tradition and intuition are here in perfect accord.

In both instances the derivation of the weak-grade forms from the strong-grade one can be described by using the same rules, and namely in case the word forms are rendered in transcription No. 3.

Table 2:4

Strong-grade basic form — Part. Sg.	Gen. Sg. / / → Ø t → Ø V—V	Nom. Sg. V → Ø/—#
nõita lauta	nõi,a lau,a	nõit laut

The consonant mutation rule $/t/ \rightarrow \emptyset$ is in morphological description necessary in any case (in inflectional types like *ladu* : *lao* 'store, Nom. and Gen.' or *vedu* : *veo* 'transport, Nom. and Gen.'). The rule $/t/ \rightarrow /, /$ may be treated as a special case of $/t/ \rightarrow \emptyset$; both rules may perhaps be incorporated in one morphological rule, such as $/t/ \rightarrow \emptyset$ adding in the morphophonology a rule which inserts the syllable boundary after the second vowel $/i/$ or $/u/$ if the loss of consonants has yielded a sequence of three vowels, or by adding, in the system of allophonic rules, the rules introducing automatic $[j]$ and $[w]$ in such cases as $\sqrt{n\ddot{o}ia}$, \sqrt{laua} , etc. (compare, however, \sqrt{pooti} \rightarrow \sqrt{pooi} \rightarrow \sqrt{pooe} \rightarrow $[poe]$, 'shop, Part. \rightarrow Gen.' where the second vowel is neither a $/u/$ nor $/i/$, and therefore $/t/ \rightarrow \emptyset$ in the case of \sqrt{pooti} does not yield a Genitive of two syllables contrary to cases like \sqrt{luuta} \rightarrow \sqrt{luua} \rightarrow $[luu, a]$ or $[luuwa]$ 'broom, Part. \rightarrow Gen.', \sqrt{lauta} \rightarrow \sqrt{laua} \rightarrow $[lau, a]$ or $[lauwa]$ 'table, Part. \rightarrow Gen.' etc.).

Thus, the phonological transcription No. 3 $[n\ddot{o}i, a]$, $[lau, a]$ reflects with particular clarity the morphophonological reality and the regularity of inflectional type No. 54 (ÖS), whereas, if rendered in transcriptions No. 1, No. 2 or No. 4, those words would be divided into two morphological subtypes, since the rules referring to the derivation of the Genitives *nōia* and *laua* would be different: in the first case, $/t/ \rightarrow [j]$, and in the second — $/t/ \rightarrow [v]$, or $/t/ \rightarrow [w]$; the latter rules, however, could not be utilized in the description of other inflection types and would therefore bear an exceptional character. Although in case of the phonological transcription No. 2, the rule of the omission of *t* in inflected forms of *nōida* : *nōia* and *lauda* : *laua* could be formulated to fit both cases — as an assimilation of *t* to the vowel preceding that *t* ($[n\ddot{o}iia]$, $[lauua]$), that rule, too, would represent an exception in morphology and would not be applicable in the description of such inflectional types as *ladu* : *lao*, etc. In that instance it becomes apparent that, in addition to a lack in phonological plausibility, transcription No. 2 is also irrational for the description of morphology.

As to transcription No. 3, one has likewise to keep in mind that, though it is phonologically well-grounded and morphophonologically appropriate for describing, say, the inflectional type No. 54 (ÖS), it still must solve the problems connected with the obtaining of different phonetic outputs; the rules (29)

$$\begin{aligned} /, / &\rightarrow [j] /Vi - V/ \text{ and} \\ /, / &\rightarrow [w] /Vu - V/ \end{aligned}$$

which give to $/, /$, in dependence upon the environment, different values, either $[j]$ or $[w]$, are applied now on a different level, being automatic allophonic rules. But, as already mentioned previously, those automatic allophonic rules are, at least to some extent, linguistic universals, and that circumstance is an additional argument for favouring that transcription both in phonology and morphology (for describing, e. g., the inflectional type in question).

Transcription No. 5 could be taken into consideration for describing the inflectional type No. 54 (ÖS) if the strong-grade forms $[n\ddot{e}i\upsilon]$: $[n\ddot{e}i\upsilona]$ and $[lau\upsilon]$: $[lau\upsilona]$ were written in the form of $[n\ddot{o}ijt]$, $[n\ddot{o}ijta]$ and $[lauwt]$, $[lauwta]$. That rendering would place those words phonologically into the VVC_1C_2 type, and grade alternation (consonant mutation) could be defined as $/t/ \rightarrow \emptyset$ (compare with such parallels in

Estonian word inflection as /k/ → ∅ in cases like *peerg* : *peeru* 'fire-stick, Nom. and Gen.', *hüürgama* : *hüürata* 'drone, Inf. I and Inf. II', *huilgama* : *huilata* 'hoot, Inf. I and Inf. II', and others).

Table 2:5

Strong-grade basic form — Part. Sg.	Gen. Sg. /j/ → ∅ /t/ → ∅ /VVR — V/ *	Nom. Sg. V → ∅ /—#/
'nōijta 'lauwta 'luuwta	nōija lauwa luuwa	'nōijt 'lauwt 'luuwt

* R is a voiced consonant.

The considerable redundancy in this transcription (the simultaneous occurrence of /j/- and /w/-initial consonant sequences and diphthongs ending in /i/ and /u/) could serve as an argument against that variant, from a phonological point of view.

Rather surprisingly, it is possible to use, for the description of that inflectional type, transcription No. 6 in which /j/ and /w/ are treated as phonemes of consonantal distribution.

Table 2:6

Strong-grade basic form — Part. Sg.	Gen. Sg. /j/ → ∅ /t/ → ∅ /C ₁ C ₁ — V/	Nom. Sg. V → ∅ /—#/
'nōjjta 'lawwta	nōjja lawwa	'nōjtt 'lawwt

That transcription, however, becomes quite inapplicable for covering the parallel inflectional type No. 69, of words with quantity alternation, like *sein* 'wall' and *paun* 'pouch' which yield, in that transcription, the paradigms /'sejjna/ : /sejna/ : /'sejja/ and /'pawwna/ : /pawna/ : /'pawwna/. That transcription is primarily unfit for the rendering of word forms in overlong quantity (the third degree of quantity).² Besides, the phonological redundancy of this transcription is also quite considerable.

Transcription No. 7 (cf. 1.6) likewise yields surprising possibilities for the interpretation of the morphophonological processes occurring in the type discussed. The paradigms in that transcription obtain the form

- (39) /'nōjta/ : /nōjja/ : /'nōjt/ and
/'lawta/ : /lawwa/ : /'lawt/.

It would be obviously inappropriate to formulate the rules covering the consonant mutation processes under question as

- (40) /t/ → /j/ /j — V/ and
/t/ → /w/ /w — V/

since these rules would form an exception. If, on the other hand, this process of consonant mutation were likewise treated as an assimilation

² М. Хинт, Создание морфофонологической транскрипции для описания морфологии эстонского языка, р. 9.

resp. /'luuw/ 'bone', or /'pii/ resp. /'piij/, or /'pai/ resp. /'paij/, or /'nõu/ resp. /'nõuw/ with /'maa/ 'land', /'tee/ 'way', /'soo/ 'swamp', etc., which do not offer such a phonological alternative (there are no low or mid semi-vowels which could be associated with long low or mid vowels). Of course, the rendering /'luuw/, /'piij/, /'paij/, /'nõuw/ could practically not be taken into consideration, and neither would the transcriptions /'pai/, /'nõu/, /'luu/, /'maa/, /'soo/, etc., which appear to be almost nonsensical constructions.

The morphological types Nos. 88, 89 and 90 (ÕS) are so close to each other in respect to the mode of inflection as well as to the phonological structure of the words involved that it is reasonable, from any aspect, to regard them as possessing a similar phonological structure — /'(C)(C)VV/. The same conception of transcription likewise proves to be the best for describing the morphology of those types.

Table 2:7

Basic form — Nom. or Gen. Sg.	Part. Sg. /t/ → /— #/	Nom. Pl. /t/ → /— #/
'pai	'pait	'pait
'või	'võit	(non-existing)
'nõu	(exceptional)	'nõut
'pii 'tooth of a comb'	'piit	'piit

A violation of that parallelism and regularity by the transcriptions /'luuw/ or /'paij/ would also considerably interfere with the interrelations between the morphological inflectional types and the phonetic and phonemic types, since the words of the structure /'(C)(C)VVC/ in the Nominative belong predominantly to those having grade alternation in inflection, whereas those of the structure /'(C)(C)VV/ always belong to the morphological types without grade alternation (excluding the type *lai* and *sau*).

All of the foregoing speaks in favour of the assumption that if the morphophonological system conceives the words with grade alternation like *lai* and *sau* as ending in a consonant, e.g. as √'lai, √ and √'sau, √ or √'laij, √ and √'sauw, √ then, at the same time, their phonetic parallels without grade alternation represented by the words *pai* and *au* should be regarded, also from the point of view of morphophonology, as ending in a vowel — √'pai, √ and √'au, √. The phonological and phonetic representations of all of these words, are, of course, wholly parallel: /'lai/, /'pai/, /'sau/, /'au/, and [laɪ], [paɪ], [saɪ], [aɪ] (or, according to a much less rational phonological concept — /'laij/, /'paij/, /'sauw/, /'auw/).

In any case, the phonological representations are obtained applying automatic phonologically defined rules to morphophonological representations, which are the outputs of morphological rules.

Consequently, if the optimal morphophonological representation of the words without grade alternation, such as *pai* and *au* coincides with their phonological representation, then in the case of the words with grade alternation of the *lai-sau* type the morphophonological representation (in some inflectional forms) differs from the phonological one. That difference is directly connected with the morphophonological interpretations of automatic [w] and [j] at the syllable boundary.

2.4. In Estonian grammar, in at least a part of the inflectional types, the Partitive Sg. may be regarded as the basic form for deriving the short form of the Illative Sg. The Partitive of the words of the phonological structure

- (42) (C)(C)VVCV (/kooli/ 'school', /sauna/ 'sauna' or
 (C)(C)VCCV (/linna/ 'town', /metsa/ 'wood' or
 (C)(C)VVCCV /suunta/ 'direction', /paatii/ 'boat')

coincides with the short Illative. When, however, there are no VV or CC sequences among the internal characteristic sounds of the word stem (counting from the first vowel of the main-stressed syllable to the vowel of the second syllable, this vowel excluded), then the short Illative is derived from the Partitive with the help of the following rule:

- (43) $C \rightarrow \text{'CC} / (\text{C}) (\text{C}) \text{V} - \text{V} /$.

Table 2:8

Basic form — Part. Sg.		Short form of Ill. Sg.: $C \rightarrow \text{'CC} / \text{V} - \text{V} /$
<i>kota</i>	'house'	'kotta
<i>pata</i>	'kettle'	'patta
<i>sõta</i>	'war'	'sõtta
<i>jõke</i>	'river'	'jõkke
<i>maja</i>	'house'	'majja
<i>oja</i>	'stream'	'ojja

The rule $C \rightarrow \text{'CC} / \text{V} - \text{V} /$ is a general morphophonological rule for deriving the short form of Illative Sg., being applied in many inflectional types (Nos. 44, 45, 46, 47, 48 of OS, and others).

From the phonological and morphophonological aspect with regard to [w] and [j], it is of importance that the above rule should also apply to inflectional types No. 44 and No. 47, which contain the words *oja* and *maja*. The phonetic forms of the short Illative of those words are [ojja] and [majja], which are perfectly parallel with the phonetic representations of the Partitive and short Illative forms of the words *lai* and *sai* — [lajja] and [sajja].

As expounded above (cf. 2.1), in the words with grade alternation of the type *lai*, the Partitive as the basic form (for deriving other inflectional forms) may be morphophonologically (as well as phonologically) transcribed using several systems /'lai,a/, /'lajja/ or /'lajja/; however, for various reasons, and primarily because of the obvious parallelism with the possible transcriptions of the similarly inflected words of the *sau* type — /'sau,a/, /'sauwa/, and /'sawwa/ — the first variant with the syllable-boundary phoneme /, / proved preferable. However, with regard to the morphological rule concerning the derivation of the short Illative, the transcriptions /'majja/, /'ojja/ are to be preferred to the others. Thus it appears once again that when formulating rules for different morphological processes in different inflectional types one has sometimes to proceed from different transcriptions, even in case of perfect homophony. Only thus can morphophonological regularity and psychological plausibility be preserved.

In order to obtain from the (morpho)phonological transcription /'majja/, the conventional phonological rendering /'mai,a/, one has to apply the rule (32): /jj/ → /i, /N — V/; the phonetic-near phonological transcription /'majja/ is obtained with the help of the rule (34): /j/ → /i /N — jV/.

As to the derivation of the short Illative of the words of the *lai*—*sau* type, it must be noted that this Illative is always of the same form as the Partitive, irrespective of the transcription mode of the latter: /'lai,a/, /'lajja/ or /'lajja/, and /'sau,a/, /'sauwa/ or /'sawwa/.

2.5. Phonetically, the word forms [lajja] = *laia* and [majja] = *majja* have parallels in (or are identical with) the Genitive of the word *maias*: *maia*³ 'partial to sweets' (ÖS inflection type No. 34). As to the transcription of the automatic [j] in this instance, one will have to consider the interests of the description of the given morphological type and of morphology as a whole, and adopt the most suitable phonological interpretation. For example, the transcriptions /mai,as/: /'mai,a/ and /majjas/: /'majja/ may well be fitted (in respect of their phonological shape) into this inflectional type, together with other words with a long stem-vowel, such as /võõras/: /'võõra/, and others. If, however, we consider that the inflectional types closely related to the mentioned one may also contain words with an automatic [w], e.g. the dialectal, word [kuõvas] ~ [kūwaz]: [kūva] 'axe-handle', then it becomes evident that the solution /mai,as/: /'mai,a/ is preferable since the parallel transcriptions /kuu,as/: /'kuuta/ can be better fitted into the rule /t/ → ∅ or /t/ → /,/, which is needed in any case; on the other hand, in the rendering /kuuwas/: /'kuuta/ as a parallel of /majjas/: /'majja/, one will have to supplement the morphological description by an exceptional rule of consonant mutation: /t/ → /w/.

As revealed by the instances of *majja* and *maias*: *maia*, orthographical conventions often reflect the systematic nature of the language to better advantage than a rigid descriptivism which exclusively proceeds from a concrete autonomous phonological transcription (derived from the phonetic one), disregarding the intrinsic regularities of the grammatical system which influence the functioning of the sound system. At the same time it is evident that the grammatical and lexical system is the purport of existence for the sound system.

By way of a hypothesis, one might assume that users of a language, under the influence of the morphological model, might give differing phonological interpretations to words belonging to different morphological types, even if the word forms analyzed are phonetically identical or parallel. Such a divergent analysis is particularly to be expected if we are dealing with phonological problems that permit non-unique solutions. It is rather remarkable that Estonian orthography, being based on a phonetic principle, supports that hypothesis since the orthographic forms (*laia*, *saua*, *maias*, *majja*) are very close to those phonological solutions that are best fitted for the description of the corresponding morphological inflectional type. Moreover, such morphophonological orthography has even been favoured by those orthographers who have tried to encourage as close a correspondence as possible between Estonian pronunciation and orthography.⁴

Finally, let it be emphasized that all the morphological inflectional types and rules discussed are regular and productive in contemporary Estonian, and that one cannot consider them as exceptional or marginal phenomena. The inflectional types of the noun and morphological processes of declension treated above have parallels in the inflectional types and morphological processes of the verb conjugation; compare the inflectional types *viima*: *viia* 'carry, take, Inf. I and Inf. II', *leidma*: *leian* 'find, Inf. I and Pres. Indef. 1st p. Sg.', *nõiduma*: *nõiun* 'conjure, Inf. I and Pres. Indef. 1st p. Sg.', *vaidlema*: *vaielda* 'argue, Inf. I and Inf. II', as well as the morphological process involved in the derivation of the *nomen agentis*, e.g. *viima* → *vii* + *ja* → *viija* = [vija] (cf. Inf. *viia* = [vija]).

³ A. Raun has also transcribed *majja* as [maj:ja] and *maia* as [mai:ja], but he adds that both may sound identical, cf. A. Raun, A. Saareste, Introduction to Estonian Linguistics. — Ural-Altische Bibliothek XII, Wiesbaden 1965, p. 12.

⁴ E. Muuk, Õigekeelsuslikke vaidlusküsimusi. — EK 1924, p. 97 ff.

These problems are common to both Estonian and Finnish languages as well as dialects, though in the Finnish the restrictions concerning the distribution of /i/ and /j/, and /u/ and /v/ differ from those in Estonian.⁵

It is worth mentioning that distributional restrictions may be of interest in the description of grade alternation, too. Thus, to the very regular Finnish grade alternation (consonant mutation) *luku:luvun* 'number, Nom. and Gen. Sg.', *apu:avun* 'help, Nom. and Gen. Sg.' corresponds in Estonian the much more complicated alternation *lugu:loo* 'story, Nom. and Gen. Sg.', *kubu:koo* 'bundle, Nom. and Gen. Sg.', etc., which, moreover, is not consistent, — one part of the words having a similar phonetic structure occur without grade alternation, whatsoever: *abi:abi* 'help, Nom. and Gen. Sg.', *kubu:kubu* (a parallel variant), etc. In Estonian the *-vu* sequence does not occur after short first main-stressed syllable (as the second syllable of the word) and this circumstance is very striking when one compares Finnish and Estonian grade alternation patterns.

2.6. A study of the problems of the automatic semivowels [j] and [w] in the phonological and morphophonological system of Standard Estonian has naturally led to the same conclusion that was reached when examining the functioning of phonological quantity in the phonology and morphology of Estonian: those phonological subsystems that may be interpreted in various ways, or those phonological problems that have various solutions, can within the frames of separate morphological subsystems be interpreted differently, viz. by the use of different phonological solutions or transcriptions in describing differing morphological types.⁶

This means that the phonological descriptions suggested by autonomous phonology do not yield an exhaustive picture of the functioning of the sound system of a language. For that reason, the functioning of that system in morphology and morphophonology has to be examined as well.

Let us now discuss the theoretical status of the transcriptions and rules presented above, as well as their interrelations.

As a matter of fact, one ought not to draw a sharp line between morphophonological and allophonic rules. A morphophonological transcription may consist of a set of phonological transcriptions; all the participant phonological transcriptions can be modified, with the help of simple rewrite rules, into each other and into phonetic transcription. The phonological transcription of autonomous phonology is but a special kind of phonetic transcription in which certain redundant features have been eliminated; thus, there is, in the end, no particular difference between morphophonological and allophonic rules.

Those realization rules are allophonic which connect the elements of a certain conventional phonological transcription with those of the phonetic one; e.g., if in that phonological transcription the pronunciations [laija] and [saiwa] are put down as /lai,a/ and /sau,a/, then the realization rules /, / → [j] /Vi—V/ and /, / → [w] /Vu—V/ are allophonic rules. However, the conception of a morphophonological transcription

⁵ Cf. K. Wiik, Onko suomen yleiskielessä oppositioita /i/—/j/ ja /u/—/v/? — Juhlakirja Paavo Siron täyttäessä 60 vuotta 2. 8. 1969 (= Acta Universitatis Tampereensis, ser. A, vol. 26), Tampere 1969, pp. 223—237; M. Leppik, Problems Concerning *j* in Finnish Dialects. — Congressus tertius internationalis fenno-ugratarum. Tallinn 17.—23. VIII 1970. Teesid I, pp. 55; *idem*, Soome murrete *j*-iga seotud probleemid. — ETATU 20 1971 1, pp. 87—102, and 2, pp. 192—202.

⁶ М. Хянт, Создание морфофонологической транскрипции для описания морфологии эстонского языка.

which consists of several phonological ones does not eliminate the possibility of using other phonemicizations, e.g. such as /*laija*/ and /*sauwa*/ (Transcription No. 4). The rewriting of those renderings into some other conventional phonological transcription — e.g. in the form /*lai,a*/ and /*sau,a*/ is rather absurd since the allophonic realization rules give the syllable-boundary phoneme /, / again the values [j] or [w] — in dependence upon environment. This resembles a situation which has repeatedly been ridiculed by adherents of generative phonology, in their criticism of both traditional autonomous phonology and S. Lamb's stratificational phonology.⁷ And yet, it seems that in a logical and systematic description of a language one cannot avoid such switchings back and forth, and even the derivation rules of generative phonology of Chomsky and Halle cannot do without them, either.⁸

But the whole question does not appear so dramatic if we consider that both the phonetic and autonomous phonological transcriptions belong, in reality, to one and the same class. In some cases, it is more suitable to make use of a more detailed transcription, and in others — a more generalized one, in which some redundant features are eliminated. The fact that the generalized autonomous phonological transcription is often more efficient than the detailed phonetic one will become particularly apparent if we compare, on the one hand, the renderings of Estonian quantity degrees and their complicated alternations in morphological paradigms in the traditional Fenno-Ugric phonetic transcriptions, and on the other — the rendering of the same phenomena in a reduced autonomous phonological transcription (here we quote only some case forms of the words *maa* 'land', *või* 'butter', *kapp* 'wardrobe; cupboard' and *pirn* 'pear'):

Fenno-Ugric transcription

Autonomous phonological transcription

Nom.: [*mâ*], [*vɛi*],/'*maa*/, /'või/,Transl.: [*mâks*], [*vɛiks*];/'*maakks*/, /'võikks/;Nom.: [*kaṗ*], [*piṛn*],/'*kapp*/, /'pirn/,Gen.: [*kaṗṗi*], [*piṛni*],/'*kappi*/, /'pirni/,Part.: [*kaṗṗi*], [*piṛni*];/'*kappi*/, /'pirni/, etc.

The majority of the changes in quantity indicated by phonetic transcription are morphologically irrelevant, they are due to phonetic conditions, such as segmental environment or the phonetic nature of sounds or clusters involved in quantity alternations.

It must also be kept in mind that such words like *maa* and *või* or *kapp* and *pirn*, which belong to related inflection types, are of an identical phonological structure — CVV and CVCC, respectively. This circumstance is reflected in the phonological transcription, but in phonetical transcription their structure is different. Thus, the phonetic transcription conceals essential morphophonological and phonological generalizations.

⁷ Cf., for example P. M. Postal, *Aspects of Phonological Theory*, New York—Evanston—London 1968.

⁸ Cf., e.g., the derivations /*jãδVr*/ → /*jãwδVr*/ → /*jãuδVr*/ → /*jãΛδər*/ → /*jãδər*/ or /*puš*/ → /*piš*/ → /*puš*/ in N. Chomsky, M. Halle, *The Sound Pattern of English*, New York—Evanston—London 1968, p. 204 ff.

In certain respects the problem brings to mind the morphological descriptions written in Estonian old orthography, where, according to the requirements of the German-like orthography, one had to introduce a particularly great number of changes in the single or double writing of vowels and consonants which had no morphological relevance whatever; cf. the old spellings *male* = /*maale*/, but *maal* = /*maal*/ and *maast* = /*maast*/ (Allative, Adessive and Elative forms from *maa* 'land'), or *kon* = /*konn*/, but *konna* = /*konna*/ or /*konna*/ (Nominative, Genitive and Partitive forms from *konn* 'frog').

The whole matter consists in the problem, which kind of transcription — a more detailed or a more generalized one — is useful in a given case for describing the different phenomena of a language system, and how far that detailization or generalization of transcription goes. Since those transcriptions may be connected with each other by a system of rules, it is possible without any compunctions to abandon the conception of only one scientifically correct phonological transcription. The question whether the phonological transcriptions used for describing the morphology are connected (by means of rewriting rules) with a detailed phonetic transcription or a more generalized phonological transcription, is, from the basic point of view presented in this paper, more of a technical question than a matter of principle. This more generalized transcription is in essence a phonetical one, too, but part of the details have been extracted from transcription and included in rules. And there is no universal transcription anyway; in some cases, e. g. when describing the morphology, it seems necessary to equalize automatic [w] and [j], and in others such an equalization may be impossible. (For example, if we should carry out a statistical count of syllable structure and analyse all the syllables into syllable onsets, nuclei and terminals, then we would lose the environments which help us to identify the realizations of the phoneme /, / — [w] and [j]. The same situation prevails in the relations between [v] and [n], in the case of the palatalization connected with following /i/ or /j/, etc.)

As already stated, all the transcriptions used here can be rewritten into phonetical transcriptions with the help of simple rules directly, without the intermediate level of a concrete favoured autonomous phonological transcription. The examples of such connecting rules have likewise been presented above. The difference between one transcription or another consists in the degree of generalization or detailization; the more generalized a transcription, the greater the number of redundant phonetic details that is eliminated into rules, and the more detailed a transcription, the less rules it makes use of. At any rate, those realization rules are integral parts of the transcription. And therefore the difference between the phonetic and the autonomous phonological transcriptions is but a technical one. Both the phonetic transcriptions as well as those of autonomous phonology may be considered to be either phonetic or phonological and one may draw a border-line between the two at a certain point, according to one's theoretical principles in handling the problem. As simple a transcription of autonomous phonology as possible is nevertheless necessary as a basis for comparing different transcriptions used in morphophonology and as a systematized reflexion of the complementarity relations (complementary distribution) of the segments of phonetic transcription.

In the foregoing, two transcriptions have been presented in this role so as to show the relativity of the problem; but there are, indeed, more possibilities. In fact, there are as many possibilities for such relative descriptions as there are reasonable phonetical and simplified phonetical

transcriptions, as well as those suggested by autonomous phonology, all of which, in the final count, could be called phonetic transcriptions.

In generative phonology, the whole circle of problems presented here would be quite different. So far, however, generative phonology has devoted but little attention to morphological paradigms which form the point of departure in the present article.*

* Rectification. In the first part of the present article СФУ. VII 1971, No. 2), p. 80, [-Vuv-] on line 20 from bottom should have been parenthesized in angular brackets, the correct reading being [-Vuv-]. The author apologizes for the misleading error.

МАТИ ХИИТ (Таллин)

ПОЛУГЛАСНЫЕ [j] И [w] В ФОНОЛОГИЧЕСКОЙ И МОРФОФОНОЛОГИЧЕСКОЙ СИСТЕМАХ ЭСТОНСКОГО ЯЗЫКА. II

Полугласные [j] и [w] в морфофонологической системе эстонского языка

2.0. С точки зрения грамматики типа *item and arrangement* рассматривается вопрос о том, как в морфологическом описании можно пользоваться различными фонологическими решениями проблемы автоматных полугласных [j] и [w], выступающих в начале второго слога (см. предыдущий номер журнала). При этом с помощью правил подстановки устанавливаются связи между отдельными вариантами транскрипции, представляющими собой воплощения разных фонологических решений проблемы.

2.1. Табл. 2:2 и 2:3 показывают, какие транскрипционные парадигмы дает описание морфологии слов типа *lai* и *sau* (слова с чередованием ступеней, тип словоизменения № 69 по орфографическому словарю = ОС), когда в основе лежат разные фонологические решения проблемы полугласных [j] и [w]. Не все парадигмы одинаково приемлемы с точки зрения морфофонологической простоты, так как некоторые транскрипции требуют более сложных правил, связывающих порожденные морфофонологические словоформы с фонологическими или же фонетическими репрезентациями. Учитывая эти морфофонологические соображения, а также типы фонологического моделирования, наилучшей и удовлетворяющей интуицией транскрипцией для описания морфологии этого типа словоизменения следует считать транскрипцию № 3.

2.2. Та же транскрипция лучше других подходит для описания морфологии слов типа *nõid:nõia* и *laud:laua* (слова с чередованием ступеней, тип словоизменения № 54 по ОС). Данная оценка учитывает возможные типы морфологических правил (в первую очередь правил чередования ступеней и степеней количества) во всей морфофонологической системе.

2.3. Морфофонологически желательные репрезентации слов типа *ai*, *nõi*, *või*, *rai* (тип словоизменения № 90 по ОС) полностью совпадают с предполагаемыми фонологическими репрезентациями этих слов. По этой причине описание морфологии этого типа не представляет трудности. Однако нельзя не заметить, что в морфофонологической системе словоформы типа *rai* (без чередования ступеней) и *lai* (с чередованием ступеней) имеют разные репрезентации, хотя фонетически они параллельны.

2.4. Такая же непараллельность более явно выступает при рассмотрении образования короткого иллатива с помощью правила (43); хотя словоформы *laia* (партитив или же короткий иллатив от слова *lai*) и *majja* (короткий иллатив от слова *maja*) фонетически полностью параллельны (т. е. совпадают, не принимая во внимание начального звука), их морфофонологические репрезентации /'lai,a/ и /'majja/ различны.

2.5. Те же явления расхождения морфофонологической регулярности и фонетического параллелизма наблюдаются и в некоторых других типах слов, связанных с проблематикой автоматных полугласных [j] и [w]. В статье рассматривается случай в словоизменительном типе № 34 (*maias:maia* и др.). Выдвигается гипотеза, согласно которой при употреблении языка фонологический анализ словоформ испытывает влияние со стороны морфологической модели слова. Это особенно вероятно в тех случаях, когда звуковой облик словоформы фонологически также имеет несколько толкований (т. е. речь идет о фонологической проблеме с несколькими решениями). Такая позиция подтверждается конвенциями эстонской орфографии, согласно которым пишется *laia*, *majja*, *maia*, хотя фонетически эти словоформы параллельны или же идентичны.

2.6. Излагается концепция морфофонологической транскрипции, состоящей из нескольких фонологических транскрипций. Эти составные транскрипции можно связать как между собой, так и с фонетической транскрипцией при помощи правил подстановки. При описании морфологии конкретных типов словоизменения выбирается транскрипция, наиболее подходящая для описания этого типа.

Считается, что фонетическая транскрипция и разные варианты автономной (таксономической) фонологической транскрипции фактически являются транскрипциями одного и того же класса, они различаются не по принципу, а по степени детализованности и обобщенности. Оба вида транскрипции могут найти применение в описании языка.