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## **VOWELS IN INITIAL SYLLABLES IN SAAREMAA\***

**Abstract.** The article provides an overview of vowel quality in the initial syllable of words having various degrees of quantity in the insular dialect of Estonian. The material consists of eight sub-dialects of Saaremaa. The article presents measurement findings of the formant analysis and their discussion. The acoustic-phonetic data served as a basis for establishing the systems of vowels in the sub-dialects of Saaremaa. The results allowed distinguishing 8 vowels (a, o, u,  $\ddot{a}$ , e,  $\ddot{o}$ ,  $\ddot{i}$ ,  $\ddot{u}$ ). Length affects vowel quality — overlong mid-high monophthongs are raised. The area under discussion has no unrounded central vowel  $\ddot{o}$  of Standard Estonian; it has developed into a mid-high rounded front vowel, the quality of which is close to the short and long  $\ddot{o}$  but not the overlong  $\ddot{o}$ . The vowels  $\ddot{o}$  and  $\ddot{o}$  have merged. Only in some words in western Saaremaa  $\ddot{a}$  has developed into a mid-high short or overlong monophthong, the quality of which is close to the short and long e but not the overlong e. The sound e is an allophone of e.

Keywords: Insular Estonian, dialectology, vowel system.

#### 1. Introduction

The present study deals with the vowels in the Saaremaa dialect, which is a North-Estonian dialect. The sub-dialects of eastern Saaremaa cover the largest and the most typical part of Saaremaa; western Saaremaa shows many peculiarities. Muhu, however, is a transitional area with regard to the western dialect (see Pajusalu, Hennoste, Niit, Päll, Viikberg 2002). There are many unpublished diachronic surveys dealing with the vowel system of the insular dialect that are typically based on auditory descriptions of speech. The sub-dialects of Hiiumaa, however, have also been studied by means of experimental phonetics; for example, the length of speech sounds has been measured (Ariste 1939; 1941). Until now there have been no acoustic-phonetic studies of the quality of vowels in Saaremaa.

The vowel system of Saaremaa has been described as having the following monophthongs  $[a, o, u, \ddot{a}, \varepsilon, e, \ddot{o}, \ddot{s}, \varrho, i, \ddot{u}]$  (see Lonn, Niit 2002 : 23—34). The symbol  $\varepsilon$  in the list stands for a mid-high sound that developed from  $\ddot{a}$ , and the symbol  $\ddot{b}$  renders a rounded vowel that developed from  $\tilde{o}$  (also, the symbol  $\ddot{g}$  for the so-called lowered  $\ddot{o}$  is used). Dialect materials

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reveal some special symbols that have been used for raised overlong midhigh vowels  $(\hat{\varrho}, \hat{\varrho}, \hat{\varrho})$ , and labialization of the vowel a has been marked as  $(a, a, a_0)$ .

However, not all the sub-dialects reveal all the differentiated monophthongs. For example, eastern Saaremaa lacks the  $\varepsilon$ -vowel;  $\tilde{o}$  is generally absent in Saaremaa, but it is present in eastern Pöide. The entire area under study has no long  $\ddot{u}$  because it has become diphthongized.

The quality of vowels may change in connection with the alternation of length. This study deals also with the quality of the mid-high vowels in the overlong degree of duration and its possible change. Dialect descriptions have differentiated the quality of long mid-high vowels as follows:  $\bar{e}:\hat{\varrho},\ \bar{\ddot{o}}:\hat{\varrho},\ \bar{o}:\hat{\varrho}$ . The situation could be compared to the behaviour of South Estonian raised mid-high vowels where the acoustic measurements have suggested that there is a partial overlap between the overlong high and mid-high vowels (Teras 2003).

Thus, the aim of the study is to describe the phonetic quality of vowels, to explain the nature of the vowel system of Saaremaa, and to compare it with the previously recorded material.

#### 2. Data and Method

The measurements are based on the recordings that the author of this article made on the homes of informants in Saaremaa in the early 1990s. When collecting the material efforts were made to record at least one person from each parish all over. Unfortunately there is no material from the subdialects of Sõrve and from Pöide. Some areas are also represented by two informants (indicated by the number after the parishes): Kihelkonna (2 informants), Mustjala, Kärla, Kaarma, Püha (2 informants), Valjala, Karja (2 informants), and Jaani. Thus, the informants included 11 male native speakers of the common language of Saaremaa who were over fifty years old. The informant from Kärla and one informant from Püha were younger. The informants were given some time to adapt to the task; they were then asked to read out the given words, which were recorded by using an Uher tape recorder.

The source material of the study is a word list consisting of 1—4-syllable words. The list includes all the possible vowels in Standard Estonian and the insular dialect in characteristic occurrences. The list includes a set where all the nine vowels of the standard language occur as short, long, and overlong vowels (e.g. jama - jaama - jaama, koli - kooli - kooli, kulud - kuulud - kuulus,  $k\ddot{a}bad - k\ddot{a}\ddot{a}bas - j\ddot{a}\ddot{a}mas$ , vened - seenes - seened,  $l\ddot{o}mad - l\ddot{o}\ddot{o}mad - l\ddot{o}\ddot{o}mas$ ,  $k\tilde{o}lud - k\tilde{o}\ddot{o}lus - k\tilde{o}\ddot{o}lus$ , silid - viilid - viilis,  $n\ddot{u}gid$ , etc.). Vowels were measured in 681 words.

The present study focuses only on the formant values of the vowels in the initial syllables of words. To this end I measured the values of the first, second, and third formants of the vowel in the first syllable. Tables 1—2 present the averaged values of the formant frequencies of the initial-syllable vowels in hertz and Barks and the standard deviation of the values of formant frequencies of the vowels. Figures 1—2 show the location of the speech sounds in the formant space according to the first and second formants. Analysis of variance has been performed in the case of mid-high

vowels. The acoustic analysis of the material was carried out at the Phonetic Laboratory at the University of Turku using the sonograph Kay Elemetrics Corp. Model 5500. The words were fed into the sonograph at frequence range 8 kHz. The spectrograms were made by using a 300 Hz filter, the time constant being 50 ms.

## 3. Findings of the phonetic analysis of vowels

## 3.1. Eastern Saaremaa

The values of formant frequencies and standard deviation of vowels resulted from the averaged data of eight speakers (analysis of 463 vowels) (see Table 1). Figure 1 shows the location of the sounds in the formant space.

 $Table\ 1$  Formant values and SD of eastern Saaremaa vowels in Hz and formant values in Barks

		Q1 words			Q2 words			Q3 words		
Vowels		F1	F2	F3	F1	F2	F3	F1	F2	F3
<i>a</i> 44/14/14 <sup>1</sup>	Hz SD Bark	642 37 6.09	1187 57 9.58	2354 168 14.10	652 24 6.16	1119 39 9.21	2372 207 14.15	656 36 6.19	1151 56 9.39	2313 123 13.98
o 14/10/31	Hz SD Bark	469 95 4.65	986 118 8.44	2207 142 13.67	446 21 4.44	926 64 8.07	2245 85 13.78	416 62 4.16	903 88 7.93	2295 141 13.93
<i>u</i> 29/14/10	Hz SD Bark	341 39 3.44	915 79 8.00	2248 131 13.79	309 32 3.12	826 77 7.42	2366 129 14.13	303 14 3.05	838 57 7.50	2281 149 13.89
ö 7/8/16	Hz SD Bark	491 45 4.84	1429 94 10.77	2366 104 14.13	498 39 4.90	1418 96 10.72	2365 141 14.13	415 66 4.16	1542 103 11.27	2349 71 14.08
<i>ö</i> 25/22/21	Hz SD Bark	460 35 4.56	1511 148 11.14	2266 119 13.84	449 45 4.47	1462 77 10.92	2296 100 13.93	472 40 4.67	1532 174 11.23	2373 167 14.15
<i>ä</i> 18/16/28	Hz SD Bark	634 32 6.02	1630 87 11.64	2407 177 14.25	656 24 6.19	1596 56 11.50	2446 87 14.35	634 41 6.02	1643 58 11.70	2418 138 14.28
<i>e</i> 21/9/10	Hz SD Bark	534 63 5.21	1810 79 12.34	2603 85 14.76	469 57 4.64	1949 142 12.84	2657 170 14.90	395 29 3.97	2003 43 13.02	2711 43 15.03
i 29/19/18	Hz SD Bark	304 49 3.07	2123 138 13.41	2815 158 15.27	290 36 2.93	2257 107 13.82	2975 162 15.63	290 27 2.92	2303 120 13.95	3053 131 15.80
ü 16/-/-	Hz SD Bark	302 18 3.05	1829 154 12.41	2453 153 14.37						

 $<sup>^{\</sup>mbox{\tiny $1$}}$  In the tables the slashes under each vowel show the number of the measured short, long, and overlong vowels.

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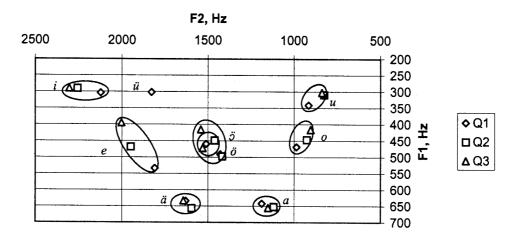


Figure 1. Eastern Saaremaa vowels in the formant space.

The Figure 1 shows that the vowels in the F1-F2 space form a three-step system with regard to height: low  $[\ddot{a}, a]$ , mid-high  $[e, \ddot{o}, \ddot{o}, o]$ , and high vowels  $[i, \ddot{u}, u]$ . The length of the speech sounds does not affect much the quality of the low vowels. The same is generally true of the high vowels i and u; their short vowels, however, are somewhat centralized. Of the mid-high vowels, the height of e reveals considerable differences depending on quantity. The F1 value (472 Hz, 4.67 Barks) of the eastern Saaremaa overlong  $\ddot{o}$  is close to the value of the first formant of the long  $\ddot{o}$  (498 Hz, 4.90 Barks); the sound is located in the formant space close to Q1 and Q2  $\ddot{o}$ , and there is a greater distance from the overlong  $\ddot{o}$ . Also, the overlong o (F1 distance 0.49 Barks) is somewhat raised in comparison with the short o.

On the front-back scale the vowels are classified as follows with regard to F2: front vowels  $[\ddot{a},\ e,\ \ddot{o},\ \ddot{o},\ i,\ \ddot{u}]$  and back vowels  $[a,\ o,\ u]$ . Visually  $\ddot{o}$  and  $\ddot{o}$  are located in the central part of the formant space. F2 of the overlong  $\ddot{o}$  is 1542 Hz and that of  $\ddot{o}$  is 1532 Hz. Thus, the difference is negligible. Comparison with the formant values of  $\ddot{o}$  in the standard language enables us to regard the eastern Saaremaa  $\ddot{o}$  and  $\ddot{o}$  as front vowels (see Eek, Meister 1998 : 228).

The short monophthongs include a, o, u,  $\ddot{a}$ , e,  $\ddot{o}$ ,  $\ddot{i}$ ,  $\ddot{u}$ ; the long ones are a, o, u,  $\ddot{a}$ , e,  $\ddot{o}$ ,  $\ddot{i}$ ,  $\ddot{i}$ . In eastern Saaremaa the location of the short and long sounds within the sound group is different with regard to height: the o-sounds of different length are located close to one another; the distance between the sounds is greater in the  $\ddot{o}/\ddot{o}$ -group, and the location of the various length degrees of e is especially fuzzy.

#### 3.2. Western Saaremaa

Western Saaremaa was represented by three speakers; two of them were from the parish of Kihelkonna and one from Mustjala. Table 2 shows the formant values and standard deviation in Hz and Barks (altogether 218 vowels were analysed); Figure 2 presents the location of the vowels in the formant space.

Table 2
Formant values and SD of western Saaremaa vowels in Hz
and formant values in Barks

** 1			Q1 words			Q2 wo	rds	Q3 words		
Vowels		F1	F2	F3	F1	F2	F3	F1	F2	F3
<i>a</i> 13/10/10	Hz SD Bark	623 40 5.94	1179 68 9.54	2360 116 14.12	592 46 5.69	1138 99 9.32	2376 103 14.16	685 28 6.41	1119 75 9.21	2300 57 13.94
o 7/5/11	Hz SD Bark	485 79 4.79	1015 229 8.61	2262 84 13.83	433 43 4.32	893 198 7.86	2253 85 13.81	414 57 4.15	951 86 8.23	2244 102 13.78
<i>u</i> 11/5/5	Hz SD Bark	341 36 3.44	895 122 7.88	2279 192 13.88	310 7 3.13	793 71 7.19	2237 35 13.76	300 20 3.03	793 92 7.19	2258 61 13.82
ö 4/5/7	Hz SD Bark	547 57 5.32	1393 28 10.61	2240 113 13.77	503 35 4.95	1500 127 11.09	2303 49 13.95	418 104 4.19	1535 105 11.24	2280 19 13.89
ÿ 11/8/11	Hz SD Bark	510 68 5.32	1463 158 10.61	2332 136 13.77	473 82 4.69	1467 118 10.95	2338 165 14.05	508 54 4.99	1448 65 10.86	2337 71 14.05
ä 10/9/14	Hz SD Bark	656 64 6.19	1613 71 11.57	2328 118 14.02	646 14 6.11	1607 101 11.55	2449 86 14.36	633 36 6.01	1617 141 11.59	2447 181 14.36
e 8/5/4	Hz SD Bark	511 66 5.02	1759 255 12.15	2507 109 14.52	493 53 4.86	1969 61 12.91	2529 129 14.57	417 12 4.17	1847 121 12.48	2537 42 14.59
ε 2/-/16	Hz SD Bark	470 35 4.66	1610 92 11.56	2540 81 14.60				482 67 4.76	1953 111 12.85	2664 101 14.92
i 7/7/5	Hz SD Bark	349 36 3.52	2156 118 13.51	2748 148 15.12	272 19 2.74	2194 111 13.63	2986 198 15.66	311 12 3.14	2213 108 13.69	2996 164 15.68
ü 8/−/−	Hz SD Bark	324 59 3.27	1763 66 12.16	2461 76 14.39						

The measurements show that in western Saaremaa  $[\ddot{a}, a]$  are low,  $[e, \varepsilon, \ddot{o}, \ddot{o} \text{ and } o]$  are mid-high, and  $[i, \ddot{u}, u]$  are high vowels. According to F2,  $[\ddot{a}, e, \varepsilon, \ddot{o}, \ddot{o}, i, \ddot{u}]$  are front vowels and [a, o, u] are back vowels. Duration affects more the quality of mid-high vowels, especially  $e/\varepsilon$  and  $\ddot{o}/\ddot{o}$ . Here the overlong vowels are raised.

According to the dialect data,  $\varepsilon$  is known in western Saaremaa; therefore I recorded this speech sound only in this area in order to clarify its phonetic character. The test words include two Q1 words with a short  $\varepsilon$ ; the other words have an overlong vowel. Nowadays one can hear  $\varepsilon$  in only some words, such as pea 'head' and some of its case forms (e.g.  $p\varepsilon\varepsilon le$  'onto',  $p\varepsilon h\varepsilon$  'onto the head' etc), the forms of the verb teadma 'to know'

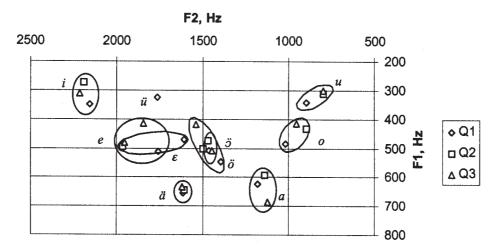


Figure 2. Western Saaremaa vowels in the formant space.

with the overlong vowel ( $t\varepsilon\varepsilon dma: ma\ t\varepsilon\varepsilon$ , Q2 forms, however, have  $\ddot{a}: t\ddot{a}\ddot{a}-da$  'to know'), and some other words (e.g.  $\varepsilon\varepsilon ks$  'for the sake of'). The experiment did not include any Q2 words. I recorded one Q1 minimal pair [sa]  $l\varepsilon h\varepsilon d$  'you go' and [puu]  $l\varepsilon h\varepsilon d$  'the leaves (of a tree)' from an informant from Kihelkonna. The formant values of the vowels in the initial syllables are similar ( $\varepsilon$  — F1 470 Hz, F2 1610;  $\varepsilon$  — F1 440 Hz, F2 1540 Hz). Analysis of variance showed that the difference between the values statistically is not significant (p-value 0.4). The averaged values of the short  $\varepsilon$  are rather close to the area of  $\ddot{o}$  (F3 being different); the difference between the values for short  $\varepsilon$  and  $\ddot{o}$ , however, is statistically not significant (p = 0.4). The overlong  $\varepsilon$  belongs to the same area as the long  $\varepsilon$  (see Figure 2 for the location of the short and overlong  $\varepsilon$ ).

## 4. Discussion

The standard deviation in the case of low and high vowels was smaller compared to the mid-high vowels. It shows a more stable articulation of these vowels. The articulation of the mid-high vowels is not as stable; hence, standard deviation is greater.

# 4.1. High vowels i, $\ddot{u}$ , and u

In both sub-dialect groups duration does not influence to a considerable degree the quality of the high vowels in words with different degrees of quantity. Thus, the short and long i are located together although the short i is slightly centralized. Also, the short u is located towards the centre of the formant space in comparison with the long one. The long  $\ddot{u}$  is absent (in Q2 and Q3 words) because diphthongization into  $\ddot{u}i$  is a common feature of the North Estonian dialects. The short rounded vowel  $\ddot{u}$  is different from i also in that the values of both its F2 and F3 are smaller.

## 4.2. Vowels $\tilde{o}$ and $\ddot{o}$

The vowel  $\tilde{o}$  has retained in Pöide in the eastern part of Saaremaa and partly also in Jaani. Elsewhere in Saaremaa and Hiiumaa the illabial pronunciation of  $\tilde{o}$  has been replaced by the labial pronunciation. There are a number of explanations for the possible change of  $\tilde{o}$ . For example, Ariste claimed that in eastern Hiiumaa one could still hear a different long  $\ddot{o}$  in those words that had previously had  $\bar{g}$ . It represents a certain intermediate step between  $\bar{e}$  and  $\bar{o}$ . Western Hiiumaa  $\bar{e}$ , however, did not develop into raised overlong or long  $\bar{o}$ . The differentiation between the original  $\bar{b}$  and  $\bar{e} > \bar{b}$  was disappearing (Ariste 1939 : 133). In the sub-dialects of Saaremaa (at least in the western ones) one can establish two definite variants of the long and overlong  $\ddot{o}: \ddot{\bar{g}}$  and  $\ddot{\bar{g}}$  ( $\ddot{\bar{g}}$  and  $\ddot{\bar{g}}$ ). In the sub-dialects of western Saaremaa  $\ddot{g}$  and  $\ddot{z}$  present different phonemes. The speech of younger people indicates assimilation towards the standard language ( $\ddot{s} > \ddot{o} < \ddot{o}$ ) (Parbus 1967 : 419—420). The vowel change  $\tilde{o}$  $> \ddot{o}$  has been regarded as part of a more general tendency towards labialization to which the labialization of a has been subjected (Lindström, Pajusalu 2003: 251).

The measurements show that there is a slight phonetic difference between the overlong  $\ddot{o}$  and  $\ddot{o}$  in eastern Saaremaa (0.51 barks; the difference is statistically significant at p = 0.04). The difference between the short and long  $\ddot{o}$  and  $\ddot{o}$  is negligible also in western Saaremaa. The difference increases between the F1 values of the overlong  $\ddot{o}$  and the overlong  $\ddot{o}$  (0.8 Barks). However, the difference is not significant (p-value 0.29).

The dialect descriptions suggest that the overlong  $\ddot{o}$  in Q3 words is not raised in eastern Saaremaa, but the overlong  $\ddot{o}$  is raised starting from central Saaremaal. The read words prove the same tendency; compared to the short  $\ddot{o}$ , in eastern Saaremaa the overlong  $\ddot{o}$  is less raised (0.68 Barks) though the difference between short  $\ddot{o}$  and overlong  $\ddot{o}$  is significant (p-value 0.01). In western Saaremaa the difference between the F1 of the short  $\ddot{o}$  and that of the overlong  $\ddot{o}$  (1.13 Barks) proves the discernible raising of the overlong vowel (Figure 2). The variance is not significant (p-value 0.10). Apparently, the raised speech sound is easier to establish because of its higher F2 values (the difference being over 100 Hz).

## **4.3.** Vowel *o*

The dialect has both the short and long o. The overlong o is partly diphthongized in eastern Saaremaa. The overlong o is raised in the entire Saaremaa starting from Pöide.

In eastern Saaremaa the pronunciation of the mid-high o is stable in different degrees of quantity. The difference between the F1 values of the short and overlong o is negligible (0.49 Barks); there is difference which is statistically significant (p-value 0.02); the difference between the F1 values of the long and overlong o is only 0.28 Barks. The distance between the first formants of the overlong o and o is 1.11 Barks, which shows that they are apparently perceived as separate vowels. The variance is highly significant (p = 0.000).

In western Saaremaa the short o is located slightly towards the centre of the formant space, which points to a more reduced pronunciation. Apparently, the difference between the quality of the short and overlong o is too small from the point of view of perception to separate them. The difference between the values of F1 in the words with Q1 and Q3 (see Table 2) is 0.64 Barks, but the difference is not statistically significant (p-value 0.147). There is no overlap of o and o in the formant space; the distance between the F1 of the overlong o and o is 1.12 Barks. The difference is statistically significant (p-value 0.003). Thus, by comparison with the raising of the South Estonian mid-high overlong vowels, where the high and mid-high overlong vowels may partly overlap, the raising of the mid-high vowels in Saaremaa is not that extensive.

#### **4.4.** Vowel *e*

The mid-high vowel e is considered to have been retained in Saaremaa sub-dialects. The raising of the overlong vowel has been observed in central and western Saaremaa sub-dialects. The overlong mid-high vowels, including e, are weakly raised in the Pöide sub-dialect in eastern Saaremaa, but the tendency to be raised seems to be stronger in southern Pöide.

The distribution of e is rather fuzzy in eastern Saaremaa. The overlong e has been raised; the difference between the F1 values of the short e and the overlong e exceeds the threshold of perceptibility (1.24 Barks). Anova shows a highly significant variance (p < 0.0001). The difference between the F1 values of the long e and the overlong e is 0.67 Barks. The distance between the first formants of the overlong e and e is 1.05 Barks, which proves that they are separate speech sounds (p-value 0.0001). In western Saaremaa the values of the first formant of the short and the overlong e are different, but this difference is not remarkable from the perspective of perception (0.85 Barks). The acoustic analysis has produced a result showing a statistically significant variance (p-value 0.009). Figure 2 shows that the overlong e is located higher than e in Q1 and Q2 words, but it is clearly distinct from the overlong e. Comparison of the two regions shows that raising is more considerable in eastern Saaremaa.

#### 4.5. Vowels $\ddot{a}$ and $\varepsilon$

Generally, in the insular dialect  $\ddot{a}$  has retained both as a short and a long vowel, which is also proved by the present study;  $\ddot{a}$  occurs compactly in the entire studied area. Some areas of eastern reveal diphthongization in historical  $\ddot{a}$ -words (e.g. pea 'head', teadma 'to know'). Starting with central Saaremaa some words present cases where  $\ddot{a}$  changed into  $\varepsilon$ . The change continues in western Saaremaa, which presents the main area of this pronunciation. Phonetically  $\varepsilon$  is becoming close to  $\ddot{o}$ , but the formant values of the first syllable of words with the overlong  $\varepsilon$  are more similar to Q2 e because in Q3 words e is raised. The difference between the values for Q3  $\varepsilon$  and Q3 e is statistically significant at p = 0.03. The values for Q3  $\ddot{a}$  and Q3  $\varepsilon$  are different (p = 0.0000).

## **4.6.** Vowel *a*

Usually a has the same quality both in the short and long degree of duration. The overlong a (aa > oa) is diphthongized in eastern Saaremaa in the Jaani and Pöide sub-dialects. There is no diphthongization in central and western Saaremaa. It is replaced by labialization in all degrees of quantity (dialect surveys point out that it is especially so in the Sõrve sub-dialects, for which the present study has no data). According to the present study, the short and long a are located rather compactly in the formant space. In western Saaremaa a is somewhat fuzzier because the overlong a is located extremely low.

#### 5. Conclusions

The results of the acoustic-phonetic analysis of the vowels occurring in the initial syllable, based on the values of F1 and F2, has shown that in the sub-dialects of Saaremaa there are 8 vowels. The occurrence of  $\ddot{u}$  is limited as it is used only as a short monophthong.

The study shows that in eastern and western Saaremaa in Q1 and Q2 words  $\ddot{o}$  and  $\ddot{o}$  are located in the formant space in the same region, which shows the closeness of these speech sounds. These speech sounds differ from each other in that while the overlong  $\ddot{o}$  is raised, the overlong  $\ddot{o}$  is not. The pronunciation of  $\ddot{o}$  and  $\ddot{o}$  has merged;  $\ddot{o}$  can be considered an allophone of  $\ddot{o}$ .

The overlong o is more raised in western Saaremaa. Eastern Saaremaa reveals some raising, too, but the difference is insufficient. By comparison with u, the raised vowel retains the quality of o and is clearly different from u. At the same time the raising is smaller than that of the overlong front vowel e.

Only the material from western Saaremaa suggests that the pronunciation of the short and the overlong  $\varepsilon$  is close to that of the short and the long e. In this sense one can claim that the overlong e and the overlong  $\varepsilon$  are different: while the overlong e is raised, the overlong  $\varepsilon$  is never raised. The vowel  $\varepsilon$  is an allophone of e. As for the phonetic quality,  $\varepsilon$  has become closer to e and has moved away from  $\ddot{a}$ , having developed from the latter.

In pronunciation also the short and long  $\ddot{\upsilon}$  have become closer to  $\ddot{\upsilon}$ . Neither  $\varepsilon$  nor  $\ddot{\upsilon}$  are raised in the case of overlength whereby the opposition between the overlong e and  $\ddot{\upsilon}$  is retained. The pronunciation of the different degrees of quantity of e diverges more in eastern Saaremaal, whereas Q3 e in eastern Saaremaa is raised most of all.

The research findings did not reveal any overlap between the mid-high and high vowels in Saaremaa. Therefore, the overlong mid-high raised vowels should be regarded as variants of the principal vowel.

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ЭЛЛЕН НИЙТ (Тарту)

## ГЛАСНЫЕ ПЕРВОГО СЛОГА В ОСТРОВНОМ ДИАЛЕКТЕ ЭСТОНСКОГО ЯЗЫКА

В статье рассматривается качество гласных первого слога в словах с чередованием степеней островного диалекта эстонского языка. Материал восьми говоров записан на магнитофонную ленту на о-ве Сааремаа. Здесь представлены результаты измерений, полученных с помощью формантного анализа, и их толкование. На основе акустико-фонетических данных выделена вокальная система сааремааских говоров, состоящая из восьми гласных  $(a, o, u, \ddot{a}, e, \ddot{o}, i, \ddot{u})$ . На качество гласного звука оказывает влияние долгота — сверхдолгие монофтонги среднего подъема становятся высокими. В рассматриваемом регионе отсутствует гласный  $\ddot{o}$  литературного языка, который здесь перешел в лабиальный передний гласный среднего подъема, по качеству близкий краткому и долгому  $\ddot{o}$ , но никак не сверхдолгому повышенному  $\ddot{o}$ . Гласные  $\ddot{o}$  и  $\ddot{o}$  слились. Только на западе о-ва Сааремаа в определенных словах встречается краткий или сверхдолгий монофтонг среднего подъема, возникший на базе  $\ddot{a}$ , по своему качеству близкий краткому и долгому e, но не сверхдолгому e. Звук e представляет собой аллофон e.