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THE HISTORY OF FINNIC *õ* IN THE FIRST SYLLABLE

0. One part of the Finnic dialects either have the phoneme *õ* [e̯ e̯ i̯] in the first syllable or *õ* is lost there whereas other dialects have no *õ* and nobody has succeeded in proving that *õ* has been lost there. The dialects with *õ* can be divided into four groups on the basis of the scope of its occurrence. Thus *õ* has very good classificatory properties enabling us to distinguish between five dialect groups.

Obviously it is reasonable to study more closely what the differences in the occurrence of *õ* are due to.

1. The occurrence of *õ* in Finnic.

1.1. The five dialect groups having a different range of occurrence of *õ* are as follows.

- (1) A part of so-called North-East Estonian coastal dialects (Jõelähtme, Kuusalu, Haljala, Viru-Nigula, and those of the northern and eastern parts of Vaivara), the Votian dialect of Kukkuzi, all Ingrian (Izhorian), Finnish, Karelian, Lude and Veps dialects.
- (2) Livonian, whereas in West Livonian *õ* in the first syllable is lost resulting from the mergers *õ* > *u* before *v* and *õ* > *ü* > *i* elsewhere.
- (3) Ugala or South Estonian.
- (4) North Estonian dialects including modern standard Estonian but excluding the so-called Eastern dialect of North Estonian. In Hiiumaa I., partly in Saaremaa I. and in some places on the western coast of the mainland *õ* has been lost partially or completely; more precisely: the short *õ*, and in West Hiiumaa, Central Saaremaa as well as on the western coast of the mainland also the long *õ* have merged into *ö* (*õ* > *ö*); in East Hiiumaa and in West Saaremaa the long *õ* has undergone a shift [ē ē] > [ḗ ḗ]. Hence the earlier contrast between *õ* and *õ* is partially retained in a somewhat altered form, e. g. [sḗk] 'food' : [mḗk] 'sword', cf. also Ariste 1939 : 133.
- (5) A part of so-called North-East Estonian coastal dialects (Lüganuse, Jõhvi, those of the western and central parts of Vaivara and of the northern part of Iisaku), the so-called Eastern dialect of North Estonian and Votian proper (i. e. all Votian dialects except that of Kukkuzi).

The present treatment may be limited, for the sake of simplicity, to standard Finnish (F), East Livonian (L), Ugala (U), standard Estonian (E) and Votian proper (V). Note also that standard Finnish, East Livonian, standard Estonian and Votian proper are further referred to as Finnish, Livonian, Estonian and Votian,

	F	L	U	E	V	Finnish	Livonian	Ugala	Estonian	Votian	Gloss
1											
2	i					liika	lõiga	liig	liig	liika	excess
3						sisar	sõzār	sõsar	sõsar	sõzār	sister
4						heimo	aim	hõim	hõim	õimo	tribe
5		a				nenä	nanā	{ nōna nana	nina	nenā	nose
6		g	e			henki	{ jōng jeng	{ heng hōng	hing	enči	soul, breath
7						metsä	mõtsā	mõts	mets	meccā	woods
8	e					neula	nõ'ggõl	nõgõl	nõel	nigla	needle
9						ehtoo	õ'dõg	{ õdag õdak	õhtu	{ õhtago õhtogo	evening
10		i				hevonen	{ õ'bbi i'bbi	{ hopõn hobõnõ	hobune	{ õpõn opõn	horse
11		g				etsiä	võtsõ	otsi	otsida	õccia	time, turn
12						kerta	kõrda	kõrd	kord	kõrta	seek
13	õ	e				verkko	võrgõ	võrk	võrk	võrkko	net
14						sõi	sei	sei	sõi	sei	ate (3 sg)
15		ü				hyvä	jõvā	{ hüvā hāā	{ hüva hea	üvā	good
16						suvi	sõ'v	suvi	suvi	suvi	summer
17		u				kuti	gõdĩñfõ	kõdi	kõdi	kutissa	tickle
18						muistaa	mõistõ	mõista	mõista	mõissaa	understand
19						nummi	num	nõmm	nõmm	nõmmi	heath
20						nostaa	nustõ	nõsta	tõsta	nõssaa	lift (tV)
21		u				ommella	umblõ	ummõlda	õmmelda	õmmõlla	sew
22						oma	u'm	oma	oma	õma	own
23						oksa	oksā	oss	oks	õhsa	branch
24		o				oppia	oppõ	oppi	õppida	õppia	learn
25						toinen	tuoi	tõinõ	teine	tõin	second, other
26						joki	jo'ug	jõgi	jõgi	{ jõci jõki	river
27						ottaa	võltõ	võtta	võtta	võttaq	take
28						ruoho	rõ'v	roht	rohi	roho	grass
29		g	e	i	e	joka	{ joggā jegā	egā	iga	{ jõka jeka	every
30						{ lohki lahki	{ lõ'igi lõ'igi	lahki	lõhki	lõhči	asunder
31		a				palaa	pa'llõ	palada	põleda	põlõa	burn (iV)
32		g				vai	või	vai	või	vai	whether, or
						sana	sõnā	sõna	{ sõna sana	sõna	word

1.2. There are 32 known vowel correspondences with *õ* for stems present in each of the five dialect groups. The correspondences are presented and illustrated in Table 1. However, most of them are known already from Raun's pioneer study (1971: 57–66).

1.3. Three correspondences, namely 14, 15 and 27 reflect a late merger $\{ *ü *u *o \} > õ$ before *v* (including *v* < *h) in Livonian and can be left out of further consideration.

Correspondence 29 reflects the East Livonian shift $\bar{a} > \bar{o}$ (West Livonian and İra preserve \bar{a} [ã]), a further merger $\bar{o} > õ$ being in progress. The parallel occurrence of $a \sim o$ in the corresponding Finnish stem is formally unexplainable, one can only state that *o* (*lohki*) is secondary. Likewise there is no motivation to the parallel occurrences $a \sim õ$ for correspondence 4 in Ugala (one can suppose that *nõna* is a

later development although Keem (1970:3) seems to be of a contrary opinion), of $\bar{o} \sim o$ for correspondence 8 in Votian (*ohotogo* may be later than *õhtago* and may have arisen due to the regressive assimilative influence of *o* in the third syllable), of $\bar{o} \sim i$ in Livonian and $\bar{o} \sim o$ in Votian for correspondence 9 (although one may maintain that *i'bbi* instead of *õ'bbi* is a West Livonianism in East Livonian it seems rather that the stem for 'silver' has had an essential role in form parallelism both in Livonian and Votian: in Livonian *õ'bdõ* 'silver', *õ'bdi* 'silvery' perhaps has caused the replacement of \bar{o} by *i* in *i'bbi* whereas Votian *õpõa* ~ *õppõa* 'silver', *õpõin* ~ *õppõin* 'silvery' either has blocked partially the merging of *o* into \bar{o} in the case of *opõn* or has caused the replacement of \bar{o} by *o*), and of $a \sim \bar{o}$ for correspondence 32 in Estonian.

1.4. Apparently one can describe the rise or loss of \bar{o} only by way of hypothesis. In doing that it is reasonable to check up, first, all the partitions of the set of five dialect groups that result from the presented correspondences. There exist 16 such partitions P1 — P16 out of 51 a priori possible partitions of a set of five elements:

P1. F/L-U-E-V: 2, 8, 12, 26, ?32	P8. F/L/U-E-V: 3, ?9, 17, 19
P2. F-L/U-E-V: 18, 25	P9. F/L-U/E-V: 20
P3. F-L-U/E-V: 23, ?29, 30	P10. F/L-U-E/V: 7, 10
P4. F-L-U-E/V: 22	P11. F/L-U-V/E: 11, 13
P5. F-U-E-V/L: 1	P12. F-L/U-V/E: 24
P6. F-E-V/L-U: 6	P13. F-U-V/L/E: 31
P7. F-V/L-U-E: 16	P14. F-E/L-U/V: 21
	P15. F-V/L-U/E: 4, ?5
	P16. F/L-U/E/V: 28

Although partitions into three P8 — P15 are deducible from partitions into two P1 — P7 (i.e. they can be viewed as further partitions of the partitions into two) and the partition into four P16 from partitions into three it appears that (1) all partitions P1—P7 and (2) all partitions P9 — P15 are contradictory. One can doubt whether e.g. partition P7 is sufficiently substantiated. It is based on correspondence 16 that is attested by one single stem (**kuti-* : **kõti-*) which is originally a descriptive one. **kuti-* and **kõti-* are mere likely sound symbolic doublets, at any rate they cannot serve as a basis for postulating a sound change.

Still, in general, most of the partitions are valid and thus the contradictoriness of the partitions cannot be eliminated. In order to overcome this formal contradictoriness one must conclude that it is conditioned by the circumstance that different innovations occurred at different time and in different dialects. Before formulating a corresponding hypothesis it is, however, reasonable to examine the explanations of the rise and/or development of \bar{o} earlier. In fact, this must be done even though there is nothing new in attempting to explain it.

2. Trends of explaining Finnic \bar{o} .

2.1. Nobody has ever tried to derive Finnish *o*, *u* and *a* from \bar{o} . This is possible only by means of postulating unmotivated mergers for one word list after another. It is clear that such a possibility as the least probable one is of no interest.

Therefore if one presumes an original \bar{o} (no matter whether \bar{o} or \bar{e}), then only for those cases where there is *e* in Finnish and \bar{o} in Livonian, Ugala, Estonian and Votian. Then there is \bar{o} in the first syllable only if the stem has a back vowel in its nonfirst syllable. Still there are certain inflectional forms, e.g. **mer|ta* 'sea (psg)', **ver|ta* 'blood (psg)' and a number of derivatives, e.g. F *veto* 'drawing, pulling; transport', E *vedu* (< **vet|o* from **vetä-* 'draw, pull,

drag'); F *etu* 'success, progress', E *edu* (< **et|u* from **ete-* 'front, fore, foremost') with **e* in the first syllable despite the occurrence of a back vowel in a nonfirst syllable. Hence the occurrence of a back vowel in a nonfirst syllable is a necessary but not a sufficient condition for the occurrence of **õ* instead of **e* in the first syllable. From such a "synchronic" conclusion one can infer that inflectional forms or derivatives with a suffixal back vowel for **e* in the first syllable are secondary whereas originally **e* was followed only by front vowels and **õ* by back vowels. Such an explanation has been accepted by Genetz (1877: 13), Thomsen (1890: 41, 95), Setälä (1896: 37—38), Kettunen (1913: 168, 173; 1914: 11—13; 1948; 1962: 125—127); Posti (1942: 17—18, 27) and it enjoys support even today, cf. Kask 1972: 123—124 and Alvre 1976: 218. In that case one has to postulate the merger **õ* > **e* in Finnish whereas the first dialect split that can be attested on the basis of *õ* and of the presented correspondences was F/V-E-U-L. Consequently, for correspondence 26 there was a merger **o* > **õ*, e. g. **votta-* > **võtta-*, **hopõta* > **hõpõta* (the contrary possibility is excluded by Lappish data).

This explanation, however, has several weak points. First, **õ* is the single vowel that did not occur at the end of a monosyllabic root in Proto-Finnic. Likewise it never occurs in this position in Livonian, Ugala, Estonian and Votian except in the name of the letter *õ*. Second, most of the stems with **õ* are clearly loans or have no etymological counterparts in cognate languages. For loans the equivalent of **õ* is normally *e*, rarely *i*, *ie*, *ia*. Thus, within the framework of the hypothesis, it is not guaranteed that at last a part of the loans were not accepted with *e* immediately in Finnish. And third, as shown by Erkki Itkonen (1945: 161—169) one finds for the few stems that have etymological counterparts in cognate languages no support for **õ*. In Lappish the regular reflex of **õ* is **e* (*eä* in Norwegian Lappish) which is also the regular reflex of Proto-Finnic **e* if there was Proto-Lappish **ä* or **o* (i. e. Proto-Finnic **a*/**ä* or **o*) in the following syllable. Elsewhere Proto-Finnic **e* has Proto-Lappish **ä* (Norwegian Lappish *ä*) as its reflex, the latter being also the normal reflex of Proto-Finnic **i*. For Mordvinian counterparts the reflexes of **õ* are somewhat divergent, cf. (1) F *hieroa* 'rub (4V)', E *hõõruda* : Erzya *čovordams*, Moksha *šovâr dams*; F *ketara* 'spoke', E *kodar*, V *kõtara* : Erzya *kodora*, Moksha *kodârks*; (2) F *siestar* 'currant', E *sõstar* : Erzya *šukštorov*, Moksha *šukštâr u*; (3) F *mela* 'paddle (n.)', E *mõla* : Erzya *mîle*, Moksha *mîlä*; F *siemaista* 'drink greedily', L *sēmḍa* 'milk', E *sõöm* 'gulp' : Erzya *siñems* 'drink', Moksha *šimâms*; (4) F *kerta* 'time, occasion', L *kõrda*, E *kord* : Erzya *kirda*, Moksha *-krda* (in the latter series the frontness of the first syllable of Erzya *kirda* is secondary; further, it is possible that this stem is not inherited from a common protolanguage but borrowed independently after the separation of Finnic (and Lappish) and Mordvinian. E. Itkonen has pointed out that also Finnic **i* has similar reflexes in Mordvinian).

2.2. Due to the lack of substantial arguments for separating **e* and **õ* it has been considered more reasonable to derive all cases of V-E-U-L **õ* as a reflex of Finnish *e* from Proto-Finnic **e* in back-vowel stems, cf. Genetz (1896: 50), Itkonen (1945; 1948).

Although one can agree that V-E-U-L **õ* as a reflex of Finnish *e* ought to be derived from an earlier **e* it is, however, not certain that **e* could occur in the first syllable of back-vowel stems (more exactly:

roots) in Proto-Finnic. Mordvinian reflexes prove **e* in no way and the present front-vowel roots of course do not confirm even their original back vocality. Lappish, in its turn, cannot prove that Finnic **a*-roots with **e* (V-E-U-L **ō*) in the first syllable were originally back-vowel roots as it does not follow the Finnic distinction between **a*- and **ä*-roots. Hence one can suggest that back-vowel genuine stems with *e* in the first syllable were formed in the course of the development and splitting of Proto-Finnic on the basis of front-vowel roots and perhaps partly from back-vowel roots. In the latter case a back-vowel or **i* became **e*. Besides the cognate languages the possibility of **i* > **e* seems to be supported by F *vieras* 'foreigner; strange; foreign; guest': L *võrõz*, U-E *võõras*, V *võõraz* which can be a Baltic loan, cf. Latvian *vīrs* 'man', Lithuanian *výras* (for a different etymology of the Finnic stem cf. Setälä 1913: 471).

The suggestion that **e* did not occur in the first syllable of Proto-Finnic back-vowel roots, of course, cannot be sufficient grounds for abandoning the suggestion that **e* occurred in the first syllable both of front- and back-vowel roots. Below both possibilities will be considered.

3. Two hypotheses concerning the origin of vowel correspondences with *ō*.

3.1. If there was no **ō* in Proto-Finnic and if no stem with **e* in its first syllable had **a* in its non-first syllables and no root with **e* in its first syllable had **o* or **u* in its nonfirst syllable then the vowel correspondences presented in Table 1 result from innovations that have occurred in the following dialect groups or dialect unions of six different stages:

- I. F-V-E/U-L: 20, 21; 29; { (a) 4
 (b) 6
- II. F-V-E-U/L: ?17; ?19, ?31; { (a) 3
 (b) 1
- III. F/V-E-U-L: 2, 7, 8, 11, 12; 9, 10; 13; ?17, ?19, ?28; 32
- IV. F/V-E-U/L: ?17, ?18, 19, 24, 25
- V. F/V-E/U/L: 20, 23; ?29
- VI. F/V/E/U/L: 4, 5; 7; 10; 21, 22; 11; 13; 24; 28

3.1.1. At Stage I there were two dialect groups (or dialects). Correspondences 20 and 21, probably, reflect the merger **o* > **u* before **m* in the dialect group U-L (**ompel(e)-* > **umpel(e)-*, **oma* > **uma*).

Correspondences 4 and 6, each representing a single stem, are of special interest. For the dialect group F-V-E protoforms of the pattern **C¹eC₁ä*, respectively **nenä* and **metsä* can be reconstructed. For U-L it is obvious only that corresponding stems were **a*-stems. Supposing that the two stems were borrowings, maybe from different sources, where their shape was approximately **nena* and **metsa*, i.e. of the pattern **C¹eC₁a*, it is entirely possible that in one Finnic dialect group, F-V-E, the stems were transformed into front-vowel stems in the course of borrowing whereas in the other dialect group they were not. The other group, U-L insists, moreover, that the two stems were not borrowed at the same time, at least into U-L. Probably there was then only one illabial back vowel **a* and therefore **nena* was transformed into **nana* in accordance with the common Finnic pattern **C¹aC₁a*. The nowadays most common Ugala form *nōna* is perhaps a later development, maybe under the influence of child language. The protoform of Ugala *mōts*, Livonian *mōtsä* was borrowed somewhat later. It is likely that this time U-L borrowed the form **metsa* and, at the same time, the pattern **C¹eC₁a* that contradicted the hitherto valid principles of vowel harmony. The stem was, in spite of SKES II 343, probably borrowed from Baltic, cf. Latvian *mežs* 'woods', East Lithuanian *mēdžias* 'tree', *mēdis* 'tree; woods' (Thomsen 1890: 200; the proposed Selkup equivalent in Setälä

1918: 41 is highly improbable; the etymology proposed in Itkonen 1959: 139—141, cf. also MSzFE II 441—442, meets difficulties in connection with U-L *õ*).

It is noteworthy that there are more examples of *a* instead of **e* in U-L, cf.

(33) F <i>seiväs</i> ,	V <i>seivāz</i> ,	E <i>teivas</i>	: U <i>saiwass</i> ,	L <i>tāibaz</i>	'pole, picket'
F <i>heinä</i> ,	V <i>einä</i> ,	E <i>hein</i>	: U <i>hain</i> ,	L <i>āina</i>	'hay'
F <i>seinä</i> ,	V <i>seinä</i> ,	E <i>sein</i>	: U <i>sain</i> ,	L <i>sāina</i>	'wall'

Cf. also Latvian *stiebrs* 'straw, stem', Lithuanian *stiebas* 'straw, stem; mast' and Latvian *siens* 'hay', Lithuanian *šiēnas* (Thomsen 1890: 219—220; Kalima 1936: 60, 99—100). As Finnic dialects had no *ie* (and *ia*) there was metathesis in the course of borrowing. Interesting enough, Lappish has *suoi|dne* 'hay' where *uo* < **a* and *sæi|dne* 'wall'; the latter is considered a Finnish borrowing.

The reality of Stage I, in addition to the correspondences presented already, can be confirmed by correspondences 34 and 35 where U-L has **ä* instead of F-V-E **e* and maybe also by correspondence 36 where U-L has an affricate instead of F-V-E sibilant:

(34) F <i>selkä</i> ,	V <i>selčā</i> ,	E <i>selg</i>	: U <i>sālg</i> ,	L <i>sālga</i>	'back (l.)'
(35) F <i>kenkä</i> ,	V <i>čenčā</i> ,	E <i>king</i>	: U <i>kāng</i> ,	L <i>kānga</i>	'shoe'
(36) S <i>kynsi</i> ,	V <i>čüüsi</i> ,	E <i>küüs</i>	: U <i>küüds</i> ,	L <i>kintš</i>	'nail, claw'

Estonian *king* in correspondence 35 has a recent *i* just as *nina* and *hing* in correspondences 4 and 5. Still one must pay attention to the Estonian verb *kāngitseda* 'put on shoes or boots' that points to the secondary nature of F-V-E **e* in **kenkä* and **selkä*, i. e. probably F-V-E **kenkä* < **kānkä*, **selkä* < **sālkä*. For correspondence 36, however, maybe only the Ugala affricate is important because Livonian has an affricate in all similar cases whereas Ugala does not, cf. e. g. F *kansi*, V *kaasi*, E-U *kaas*: L *kõntš* 'lid. cover'.

Correspondence 29 presumably results from a partial merger **a* > **o* in F-V-E (**laški* > **loški*). In Finnish the innovational stem **loški* obviously degenerated under the influence of related verb stems which had preserved **a*. Although one can imagine instead the merger **a* > **õ* in V-E at Stage V, it seems that the presumption can be confirmed by the F-V-E stem **loši* 'salmon' that is probably a Baltic borrowing in Finnic and Lappish, cf. F *lohi*, V-E *lõhi* and Latvian *lasis* (> Livonian *laš*), Lithuanian *lašišà*, cf. also Lappish *luossâ* where *uo* < **a* (Thomsen 1890: 194; Genetz 1896: 16; Kalima 1936: 133).

3.1.2. At Stage II Ugala was separated from Livonian and constituted a dialect union together with F-V-E. (A dialect union consists of any set of related dialects that share a common innovation.) In general, this stage is not well distinguished.

Correspondence 17 may result from the merger **u* > **o* (**mujsta-* > **mojsta-*) only in Livonian. On the other hand, it is entirely possible that **u* > **o* in this stem took place in the dialect union V-E-U-L at Stage III whereas at Stage IV the stem underwent the merger **o* > **õ* in V-E-U.

The Livonian mergers **o* > **u* (**nosta-* > **nusta-* 'raise, lift' and **novs(e)-* > **nuvs(e)-* 'rise (up)'), cf. F *nousta* : L *nūzõ* and **a* > **o* (**vaj* > **voj*) for correspondences 19 and 31 are rather clear-cut. However, it is far from clear that they took place namely at Stage II. They could just as well take place at any following stage.

The evidence for the dialect union F-V-E-U and, hence, for Stage II

is provided by correspondences 3 and 1. Correspondence 3 represents a Baltic borrowing, cf. Latvian *sāime* 'family', Lithuanian *šeimà* (Thomsen 1890: 300—301; Kalima 1936: 99). Here F-V-E-U has accepted a pattern with no vowel harmony, more exactly: **e* in an **o*-root, hence **šeimo* or, rather, **šejmo*. It is not certain that F-V-E-U **šejmo* and Livonian **šajmэ* (≫ *aim*) came from one and the same source as modern Lithuanian has the diphthong *ei* whereas Latvian has *ai*. Therefore it is possible that correspondence 3, besides reflecting the splitting of U-L reflects also the splitting of the Baltic languages. Correspondence 1, similarly, represents a Baltic borrowing, cf. Latvian *palikt* 'remain', *lieks* 'superfluous', Lithuanian *likti* 'remain': *liēka* 'remains', *liėkana* 'remainder, rest' (cf. also Thomsen 1890: 195—196; Kalima 1936: 18). This stem, likewise, can be borrowed from two different Baltic sources. For Livonian *lōiga* it is noteworthy that although even this time the Baltic **ie* has undergone metathesis in the course of borrowing, Baltic **e* has not been replaced by *a* as for correspondence 33 (cf. L *tāibaz, āina*). At Stage II the Livonian stem had probably the form **lejka* (*[*leika*]). Probably, **lejka* was borrowed later than **šajmэ*.

Obviously at Stage II all Finnic dialects had already patterns with **e* in back-vowel stems (cf. e. g. F-V-E-U **šejmo* ~ **šeimo*, U-L **metsa*, L **lejka*). It is reasonable to suppose that namely at that stage both an extensive derivation of back-vowel stems on the basis of front-vowel stems (including those with **e* in the first syllable) and an extensive borrowing of back-vowel stems with **e* in the first syllable took place. Existing dialect differences did not hinder their overall acceptance since the differences were small and the area of distribution of the dialects was not interrupted.

3.1.3. At Stage III the dialect group F-V-E was split whereas V-E-U-L had substantial common innovations forming thus a dialect union.

In back-vowel roots (and in derivatives that were no longer perceived as derivatives) with **e* in their first syllables vowel harmony was established in V-E-U-L by means of the split **e* > {**e* **ō*} whereby **e* > **ō* took place in back-vowel roots (correspondences 2, 7, 8, 11, 12), and maybe 9, e. g. **sesar* > **sōsar*, **nekla* > **nōkla*, **ektako* > **ōktako*, **kerta* > **kōrta*, **verkko* > **vōrkko*. On the other hand, all transparent derivatives were left unaffected by the harmony, cf. **vetjo* 'drawing, pulling; transport' from **vetä-* 'draw, pull, drag'; **eljo* 'living, life' from **etä-* 'live'. The innovation **e* > **ō* embraced besides the roots common to V-E-U-L obviously also those roots that occurred only in a part of the dialects of the union V-E-U-L but satisfied the conditions of the innovation, cf. V-E-U **šeimo* > **hōimo* (correspondence 3), U-L **metsa* > **mōtsa* (correspondence 6), L **lejka* > **lōjka* (correspondence 1). It is highly probable that the split **e* > {**e* **ō*} took place also in nonfirst syllables, depending on the front or back vowel of the preceding syllable.

Apparently in order to establish the status of the new phoneme **ō* the merger **o* > **ō* took place in about ten V-E-U-L stems represented by correspondence 26 (**votta-* > **vōtta-* 'take', **šopeta* > **hōpōta* 'silver', **souta* ~ **sovta-* > **sōuta-* ~ **sōvta-* 'to row', **oiketa* ~ **ojketa* > **ōikōta* ~ **ōjkōta* 'right (adj)' etc.). **a* has become **ō* in the stem **sana* > **sōna* (correspondence 32), Estonian *a* ~ *ō* remains still unexplainable.

Correspondence 13 reflects the delabialization of **ō* before the preterite suffix in V-E-U-L: **sōi-* ~ **sōj-* > **sei-* ~ **sej-* 'ate', **lōi-* ~ **lōj-* > **lei-* ~ **lej-* 'struck, beat'. As was mentioned in 3.1.2 it is possible that for correspondence 17 **u* became **o* in V-E-U-L, cf. **muista-* ~

**mujsta-* > **moista-* ~ **mojsta*. Correspondence 28 seems, at first sight, to provide evidence of the change **o* > **e* in the stem **joka* in V-E-U-L. In the light of the trend of development of **e* in back-vowel stems at Stage III this is, however, quite improbable.

There are two mergers characteristic of Finnish. First, **e* became **i* for correspondence 2, cf. **sesar* > **sisar*. Second, **o* became **e* for correspondence 10, maybe even under the influence of the vowel in the following syllable cf. **otsi-* > **etsi-*. It is to be noted that the two Finnish mergers could, actually, take place at any stage beginning with Stage III.

The case of correspondence 9 representing one single stem with the meaning 'horse' deserves special attention. There are several alternative explanations of the case. For Stage III five alternatives exist: (1) V-E-U-L **e* > **o* under the influence of **o* of the following syllable before the split **e* > {**e* **ō*} took place, (2) V-E-U-L **e* > **ō* according to the split **e* > {**e* **ō*}, (3) F **o* > **e*, maybe in connection with the similar innovation for correspondence 10, (4) V-E-U-L **o* > **ō* as for correspondence 26, F **o* > **e* as for alternative (3), (5) V-E-U-L **e* > **o* > **ō* whereby **e* became **o* as for alternative (1) and **o* became **ō* as for alternative (4). Further developments of the stem in V-E-U-L depend on the output of Stage III. V-E-U-L **ō* could become **o* either at Stage IV in V-E-U maybe under the influence of the stem for 'silver' (about Livonian *ō* ~ *i* and Votian *o* ~ *ō* cf. 1.3) or at Stage VI first in Estonian and then under direct Estonian influence in Ügala. V-E-U-L **o* could become **ō* in Livonian under the pushing influence of the Livonian stem for 'late', cf. modern Livonian *o'bbō* 'late (adv)' and *o'bbi* 'late (adj)'. However, what is really important here is not how the stem for 'horse' has developed in Finnic but the potential possibility of **o* > **e* in back-vowel stems in Finnish. Here may lie the reason for Mordvinian back-vowel reflexes of Finnish *e*, e. g. for F *hieroa* 'rub (tV)', *siestar* 'currant', cf. 2.1.

Lastly it is to be noted that obviously at Stage III in V-E-U-L **n* was assimilated to the preceding vowel before **s*. However, all Livonian equivalents of Finnish substantives ending in *-nsi* in nsg and having *-nsi-* in ppl had instead of **nsi*, **ntsi* and there **n* did not assimilate to the preceding vowel cf. L *kintš* 'nail, claw, hoof', *kōntš* 'lid, cover'. On the analogy of stems that ended in nsg in **nsi* in Ügala **n* has been assimilated to the preceding vowel even in the only stem that ended in nsg in *-ntsi*, cf. *kūuds* 'nail, claw' (correspondence 36). As examples of this assimilation cf. F *mansikka* 'strawberry': V *maazikaz*, E *maasikas*, U *maašk*, L *mōškōz*; F *kansi* 'lid, cover': V *kaasi*, E *kaas*, U *kaas*: L *kōntš* and correspondence 36. A similar assimilation of a nasal although before a somewhat wider variety of non-stops took place also in Lithuanian and, even in a more complicated fashion, in Latvian (Halle, Zeps 1966: 107—108; Bond 1971: 224—225; Levin 1973). The hitherto accepted viewpoint that in Livonian *n* has been generalized into nominative forms of the **nsi*-substantives from other cases (Thomsen 1890: 43, 55; Setälä 1899: 363; Kettunen 1938: XXXVI; Posti 1942: 253) is apparently based on an erroneous presumption that all the substantives in question had the ending **nsi* < **nti* in Proto-Finnic.

3.1.4. Stage IV is characterized by common innovations in V-E-U. The most clear-cut of them is the merger **o* > **ō* in about 20 stems, cf. **joki* > **jōki* (correspondence 25), **nosta-* > **nōsta-* and **nous(ō)-* > **nōus(ō)-* (correspondence 19), **toinōn* > **tōinōn* (correspondence 24).

The same merger may have taken place even for correspondences 17 and 18, namely **moista-* > **mōista-*, **nommi* > **nōmmi*, for as was

mentioned in 3.1.2 and 3.1.3 it is possible that for correspondence 17 **u* became **o* in V-E-U-L. Similarly, **u* could become **o* for correspondence 18 but only in V-E-U at Stage IV before **o* > **õ* took place. However, it is equally possible that correspondences 17 and 18 mirror simply the merger **u* > **õ* influenced maybe by the neighboring *m* (cf. also a more recent Estonian local development *mujal* > *mõjal* 'elsewhere').

As shown in 3.1.3 **õ* could become **o* for correspondence 9 in V-E-U. 3.1.5. Stage V is characterized by innovations in V-E. As at Stage IV the most clear-cut is the merger **o* > **õ*, cf. **ompõl(õ)-* > **õmpõl(õ)-* (correspondence 20), **oppi-* > **õppi-* (correspondence 23).

At first sight, **a* has become **õ* in the stem **lahki* > **lõhki* (correspondence 29). Considering the Finnish data, however, it is more likely that in this stem, first, **a* became **o* in F-V-E, cf. 3.1.1, and, second **o* became **õ* in V-E at Stage V as for correspondences 20 and 23. The merger **a* > **õ* comes into question also for the two stems of correspondence 30, cf. **pala-* > **põlõ-* 'burn (iV)' and **lan̄ka* > **lõn̄ka* 'yarn'. In **pala-* **a* of the first syllable could become **õ* under the influence of the corresponding transitive (causative) stem, cf. F *pol|tta-*, V *põlõ|tta-*, E *põle|ta-*, U *põlõ|ta-* (~ *palu|ta*) where *-tta-* or *-ta-* is the causative suffix; the vowel of the first syllable of the transitive stem differs from that of the intransitive stem also in Lappish and Mordvinian, cf. LpN *buolle-* (iV) : *boal'de-* (tV) and Mordvinian *pala-* (iV) : *pulto-* (tV) (Steinitz 1964: 123; Itkonen 1946b: 283, 292). Considering the vowel of the second syllable, however, it is more probable that **pala-* has been replaced by the back-formation of the causative stem (cf. also Itkonen 1946b: 283) after Finnish and V-E had separated, i.e. at Stages III, IV or V. Thus, instead of **a* > **õ* either **pole|tta-* → **pole-* > **polõ-* > **põlõ-* or **polõ|tta-* → **polõ-* > **põlõ-* or **põlõ|tta-* → **põlõ-* could be the case. Hence, for correspondence 30 there is but one more or less certain case of **a* > **õ*, namely **lõn̄ka*. In general, **a* > **õ* is an accidental change.

3.1.6. At Stage VI Votian and Estonian are separated each having its innovations.

Within the limits of the correspondences under study, Votian is characterized by the further extensive merging of **o* into **õ*, cf. **otsi-* > **õtsi-* (correspondence 10), **oma* > **õma* (correspondence 21), **oksa* > **õksa* (correspondence 22). Another interesting development is **õ* > **i* before **kl*: **nõkla* > **nikla* 'needle', **sõkla* > **sikla* 'sieve, screen' (correspondence 7), it is not quite impossible that this innovation is somehow conditioned by the influence of Russian *igla* 'needle'.

Estonian innovations are more manifold: (1) **e* > **i* especially before **ŋ*, cf. *nina* (correspondence 4), *hing* (correspondence 5), *king* (correspondence 35) and maybe *iga* (correspondence 28); (2) **õ* > **o*, cf. **kõrta* > **korta*, **kõtara* > **kotara* 'spoke' (correspondence 11), (3) **e* > **õ* for correspondence 13 and (4) **õ* > **e* for correspondence 24. The innovation **e* > **i* is relatively late as it includes also Middle Low-German borrowings, e.g. *kinkida* 'make a present' < *schenken*, [*skenken*], *pink* 'bench' < *benk* (cf. also Kettunen 1962: 128). The two latter changes were triggered by the loss of vowel harmony. **sei-* > **sõi-* and **lei-* > **lõi-* (correspondence 13) became possible only after **sei|vät* > **sei|vat* 'they ate', **lei|vät* > **lei|vat* 'they struck' and by the analogy of such preterite stems as **jõi-* 'drank' and **lõi-* 'created', **tõi-* 'brought' where **õ* < **o* at Stage IV. Resulting from **e* > **õ* for correspondence 13 all monosyllabic Estonian verb roots that end in a mid labial vowel, *o* or *õ*, alternate with *õ* in preterite, cf. *joo|n* 'I drink'

: *jõ|n* 'I drank', *söö|n* 'I eat' : *sõi|n* 'I ate', *loo|n* 'I create' : *lõi|n* 'I created', *löö|n* 'I strike' : *lõi|n* 'I struck'. Similarly, **teine(n)* became possible only after the loss of *ō*-harmony, i.e. after the loss of **ō* from the nonfirst syllables; hence **tōinōn* > **tōine(n)* > **teine(n)*. Last, there is a case of **a* > **ō* in Estonian (correspondence 31); it may result from the occurrence in unstressed position of the conjunction 'or'.

3.2. If there was no **ō* in Proto-Finnic and if **e* occurred in the first syllable both in back- and front-vowel stems or roots, then the vowel correspondences presented in Table 1 result from innovations that have taken place in the following dialect groups or dialect unions of four different stages:

- A. F/V-E-U-L: 2, ?3, 7, 8, 11, 12; ?9, 10; 13; ?17; 26, ?28; 32
- B. F/V-E/U-L: 4; 6; 20, 21; 23; 29, 30
- C. F/V-E-U/L: 3; 9; 17, 18, 19; 24, 25
- D. F/V/E/U/L: 4, 5; 7; 10; 11; 21, 22; 24, 28, 31

3.2.1. At Stage A **e* split into **e* and **ō* in V-E-U-L. As a result vowel harmony was established for correspondences 2, 7, 8, 11, 12 (e.g. **sesar* > **sōsar*, **nekla* > **nōkla*, **ektako* > **ōktako*, **kerta* > **kōrta*, **verkko* > **vōrkko*) and maybe for correspondence 3 (**šejmo* > **šōjmo*). In the latter case one must then presume the development **ō* > **a* at Stage C or D in Livonian, i.e. **šōjmo* > **šajmā* or (**šōjmo* >) **hōjmo* > **hajmā*. More likely, however, this stem was borrowed from different sources, cf. 3.1.2, and not earlier than at Stage C. For correspondence 13 **ō* became **e* before the preterite suffix in V-E-U-L, cf. **sōj-* > **sej-*. Correspondence 17, probably, reflects **u* > **o* in the stem **mujsta-* > **mojsta-*; less probable were **u* > **ō* in V-E-U at Stage C and **u* > **o* in Livonian at Stage C or D. For correspondence 26 the split **o* > *{*o *ō}* in V-E-U-L is to be presumed, e.g. **votta-* > **vōtta-* whereas for correspondence 28 **o* > **e* were the case, cf. **joka* > **jeka*.

Finnish is characterized by changes **e* > **i* for correspondence 2, cf. **sesar* > **sisar*, and **o* > **e* for correspondence 10 and maybe also for correspondence 9, i.e. **otsi-* > **etsi-*, **šopo(j)-* > **šepo(j)-* or (**šopo(j)-* >) **hopo(j)-* > **hepo(j)-*. However, for the latter stem several alternative explanations are possible, cf. 3.1.3. Note that dating of the Finnish innovations is impossible: they could take place at any of the stages A–D.

3.2.2. At Stage B V-E-U-L was split into V-E and U-L.

U-L is characterized by the following mergers: (1) **o* > **u* before **m*, cf. **ompōl(ō)-* > **umpōl(ō)* = (correspondence 20) and **oma* > **uma* (correspondence 21), (2) **e* > **a*, cf. **nenä* > **nana* (correspondence 4), (3) **e* > **ä*, cf. **selkä* > **sälkä*, **kenkä* > **känkä* (correspondences 34 and 35) and (4) **e* > **ō*, cf. **metsä* > **mōtsa* (correspondence 6). Merging of **e* into **ō* was accompanied by the change **ä* > **a* in the following syllable.

In V-E **a* became **ō* for correspondence 29, i.e. **laški* > **lōški*. For correspondence 30 it is more reasonable to presume the back-formation of the causative stem **pōlōtta-* → **pōlō-* than **a* > **ō*, cf. 3.1.5. The most extensive innovation in V-E was the merger **o* > **ō*, cf. **oppi-* > **ōppi-* (correspondence 23).

3.2.3. At Stage C U-L was split into Ugala and Livonian whereas Ugala and V-E formed a dialect union.

The dialect union V-E-U is characterized by the merger **o* > **ō* for correspondences 17, 19, 24, 25, cf. **moista-* > **mōista-*, **nosta-* > **nōsta-*, **toinōn* > **tōinōn*, **joki* > **jōki*. The same merger may have taken place for correspondence 18 if it was preceded by the merger

**u* > **o*, i. e. **nummi* > **nommi* > **nõmmi*, another possibility is that **u* became **õ* directly, i. e. **nummi* > **nõmmi*. There is little probability of **u* > **õ* for correspondence 17, i. e. of **muista*- > **mõista*-, cf. 3.2.1.

3.2.4. At Stage D Votian and Estonian were separated, hence all the five dialect groups that are of primary importance from the standpoint of the history of *õ* were formed. For Votian and Estonian innovations cf. 3.1.6.

3.3. Of the two hypotheses, 3.1—3.1.6 and 3.2—3.2.4, the latter is considerably simpler than the first one as it requires only four stages instead of six to explain how **õ* has arisen. The second explanation is more simple even in this that it requires no restrictions on the distribution of **e* whereas according to the first explanation **e* occurred in a back-vowel stem only if there was a back-vowel suffix. Both hypotheses are similar in the point that their last four stages (i. e. all stages of the second hypothesis) deal with the same dialect groups or unions. Note only that according to the first hypothesis the grouping F/V-E-U/L came before the grouping F/V-E/U/L whereas according to the second hypothesis the two groupings occurred just in inverse order, cf. Figure 1.

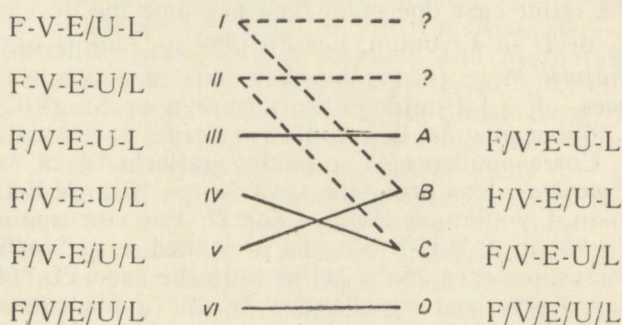


Fig. 1.

However, the greater simplicity of the second hypothesis is conditioned by the circumstance that it actually avoids answering the question when did the back-vowel stems with **e* in the first syllable arise by pushing the problem into the prehistory of Finnic. Besides that because of having no place for F-V-E the second hypothesis is unable to give reasons for several phenomena that are well-founded as far as the first hypothesis is concerned.

Thus in 3.2.2 the U-L changes **e* > **a* and **e* > **õ* in **nenä* > **nana* (correspondence 3), **stejpäs* > **stajpas*, **šejnä* > **šajna*, **sejnä* > **sajna* (correspondence 33) and **metsä* > **mõtsa* (correspondence 6) as well as the simultaneous transfer of the corresponding stems from **ä*-stems into **a*-stems remain unmotivated. Formally the case can be explained in another way, namely by postulating that at Stage A the stems, first, occurred in Finnish in the form **nena*, **stejpas*, **šejna*, **sejna* and **metsa* and in V-E-U-L, accordingly, in the form **nana*, **stajpas*, **šajna*, **sajna* and **metsa* > **mõtsa* and, second, after the change **a* > **ä* in the second syllable in Finnish the Finnish forms displaced at Stage B the older forms in V-E. Actually, this explanation is entirely ad hoc. Similar ad hoc explanations are needed at any rate for explaining **nts* > **ns* in F and V-E (**ns* is then either a Finnish influence in V-E or a V-E influence in Finnish). In the framework of the second hypothesis the Estonian verb *kängitseda* must be either a U-L,

U or L borrowing, Finnish *lohki* must be either a V-E, V or E borrowing. Analogically, as there is no place for F-V-E-U, Finnish *liika* and maybe even Ugala *liig* must be borrowed from V-E.

All this makes the first hypothesis far preferable to the second one. 3.4. It is to be noted that the two hypotheses have dealt only with these stems with *õ* that occurred in all five dialect groups. Besides those there are many stems with *õ* which do not occur in all dialect groups. Two of them exhibit very unusual vowel correspondences and deserve special attention:

(37) F *seisoa*, V $\left\{ \begin{array}{l} s\ddot{o}isoa \\ seisoa \end{array} \right\}$, E *seista*, U *saista* 'stand (iV)'

(38) F *kaiikki*, V $\left\{ \begin{array}{l} k\ddot{o}i\ddot{c}\ddot{c}i \\ k\ddot{o}i\ddot{k}ki \end{array} \right\}$, E *kõik*, U $\left\{ \begin{array}{l} k\ddot{o}ik \\ k\ddot{o}kk \\ kikk \end{array} \right\}$ 'all'

For correspondence 37 it is noteworthy that in Estonian and Ugala there is a morphologically conditioned alternation of stem allomorphs, cf. E *seis|ta* 'stand (inf.)' : *seisad* 'you (sg.) stand', U *sais|ta* : *saisa|t*. Estonian *seisa-* comes from **seisä-*. Hence the problem is how to explain besides F-E *e* ~ V *õ* ~ U *a* in the first syllable also F-V *o* ~ E **ä* ~ U *a* in the second syllable. Note that Votian *seiso-* is influenced by Ingrian and/or Finnish. The same may hold even for *-o-* in *sõiso-* as Votian *-o-* is unique in its group, cf. North-East Estonian (Lüganuse, Jõhvi) *sõis|ta* : *sõisa|d* (so called Eastern North Estonian (Kodavere) *seis|sä* : *seesä|d* is influenced by (North) Estonian). The situation is even more complicated as the corresponding Lappish stem *čuožžõ-* seems to provide evidence for **a* in the first syllable and **o* in the second syllable. As this stem is considered to be a Proto-Finno-Ugric inheritance, cf. SKES III 199, despite rather irregular consonant and vowel correspondences one can speculate that in the stem **šajšo-* (Lappish *č-* and *-ž-* come from **š* or **č*) **a* was replaced by **e* in F-V-E at Stage I under the influence of the consonantal environment. **o* could become **a* (and later **ä*) on the analogy of **a*-stems if their imperfect forms were formally similar, cf. F (*seiso-* : *seiso-* 'stood' and (*maksa-* 'pay; cost' : *makso-* 'paid; cost'. On the other hand, the irregularity of consonant and vowel correspondences for this stem, however, may result from the circumstance that the Finnic and Lappish stem is not related to stems of other Finno-Ugric languages being borrowed from an unknown language at Stage I. There the stem could have in its first syllable **ei*, **ej* or **ie* and be treated similarly to the Baltic borrowings represented by correspondence 33. Then it would be another case where Lappish has **a* (> *uo*) as Ugala (and Livonian) whereas F-V-E have **e*, cf. Lappish *suo|dne* 'hay', U-L **šajna*, F-V-E **šejnä*.

For correspondence 38 a borrowing from Baltic seems to be the case, cf. Latvian *cik* 'how many/much', Lithuanian *kiek* 'how many/much, somewhat; as many/much as', *kiėkis* 'a lot' (Thomsen 1890: 186—187; Kalima 1936: 105). The borrowing could take place at Stage III, first into V-E-U and from there into Finnish whereas V-E-U **õ* was replaced by **a*.

4. Finnic dialect split. Although the above discussion cannot serve as a proof of the genesis and groupings of Finnic tribes it nevertheless enables us to draw some essential conclusions and to formulate some hypotheses in this field.

4.1. First, apparently the five dialect groups presented in 1.1 correspond to five former tribal groups. Hence the groups illustrated above by Finnish and Votian proper which have disintegrated and then integrated

with other groups must be somehow named. Therefore I call the \bar{o} -less group the Taro group. Posti (1973: 281), namely, regards it as possible that the Lapps once named the Finns and Karelians the Taros (Lp *darrõlâš*). There is nothing to prevent us from expanding this hypothetical name to cover the whole group. The fifth group will be called the Chude group.

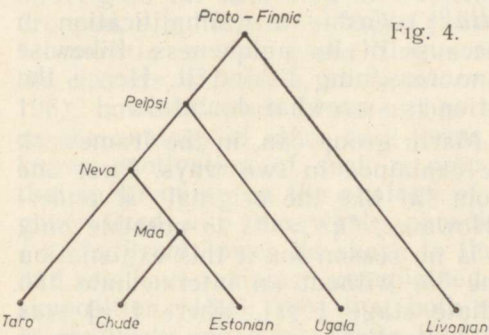
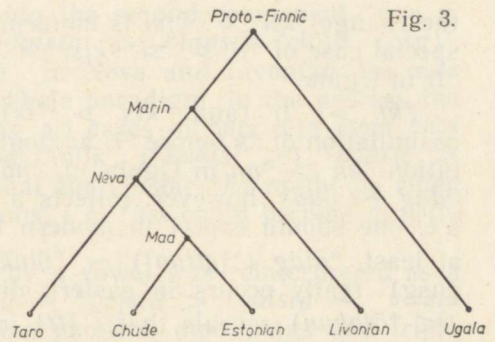
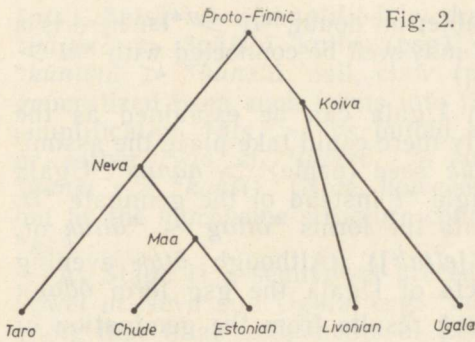
4.2. Second, the presence of different components in modern Votian and Estonian should be reflected in their classification.

In Votian two main dialects must be distinguished: (1) Votian proper of Chude origin and (2) Kukkuzi of Taro origin.

In Estonian five main dialects must be distinguished: (1) North Estonian or Estonian proper, (2) Vaiga of Chude origin (i. e. the so-called Eastern North Estonian whose area more or less coincided with the historical region of Vaiga), (3) Alu of Chude origin (i. e. the \bar{o} -dialects of the so-called North-East Estonian coastal dialects), (4) Viru of Taro origin (i. e. the \bar{o} -less part of the so-called North-East Estonian coastal dialects) and (5) Ugala. Connecting the two Chude components — Vaiga and Alu — is not reasonable: first, it is not sure that the separation of Vaiga and Alu was the last step in the genesis of the three Chude groups; second, Vaiga shares with North Estonian and Ugala such essential innovations as accent alternation, palatalization, regular syncopation and apocoptation. Connecting Alu and Viru into the North-East Estonian coastal group, on the other hand, is entirely incorrect: in addition to being descended from different dialect groups they even do not have any common innovations. The common features ascribed to «North-East Estonian coastal dialects» (cf. Kask 1956: 30—31; 1962: 10—12) are actually nothing more than those innovations characteristic of North Estonian, Vaiga and Ugala that do not occur in Alu and Viru.

4.3. Third, one may take it to be proved that Taro, Chude and Estonian descended from the same dialect group which can be called the Neva group. Neva has split into Taro and Maa, the latter being the common ancestor of Chude and Estonian (cf. V *maačeeli* 'Votian language', *maa-väci* 'the Votian people' and E *maakeel* 'Estonian language', *maarahvas* 'the Estonian people', where *maa* 'country, land'. The last step in the genesis of the five Finnic tribal and dialect groups was doubtless the separation of Estonian and Votian; this idea has been expressed in somewhat different terms by Ariste (1956; 1958; 1960; 1966).

The problem of the ancestor(s) of Livonian and Ugala is more complicated. On the basis of the history of \bar{o} Livonian and Ugala may well stem from a sister group of Neva which will be called Koiva. However, there have been changes $*pts > \{ *ts \ *ss \}$, $*kti > *tsi$, $*kt > \{ *tt \ *t \}$, $*ks > *ss$ in Ugala and changes $*pts > *ps$, $*kti > *ksi$, $*kt > *ht$ everywhere except in Ugala (cf. Setälä 1899: 162, 195, 197—205; Posti 1953: 38—46; Ariste 1955; 1961: 22; Kask 1972: 60, 64—65) e.g. U *lat's* 'child' : F *lapsi*, V *lahsi* (*-hs-* < **-ps-*), E *laps*, L *läpš*; U *nüssä* 'miik (tV, iV)' : F *lypsää*, V *lühsää*, E *lüpsta*, L *lipsõ*; U *kat's* : *katõ* 'two (nsg; gsg)' : F *kaksi* : *kahden*, V *kahsi* : *kahõõ* (< **kahõõ*), E *kaks* : *kahe*, L *kakš* : *kõ'd*; U *õdag* ~ *õdak* 'evening' : F *ehtoo*, V *õhtago* ~ *ohtogo*, E *õhtu*, L *õ'dõg*; U *uss* 'door' : F *uksi*, V *uhsi*, E *uks*, L *ukš*. According to their traditional explanations the changes could have taken place only before Stage I. On the other hand, if Finnish *otsa*, Votian *õcca*, Estonian and Ugala *ots* and Livonian *võntsa* come from **vontsa* then $*nts < *ts$ here may also have taken place before Stage I. Hence, besides (1) the possibility of the splitting of Proto-Finnic into Neva and Koiva (Figure 2) one must also consider the possibilities of its splitting (2) into Marin (i. e. Neva-Livonian) and Ugala (Figure 3) and (3) into



Peipsi (i.e. Neva-Ugala) and Livonian (Figure 4). Therefore the changes of **pts*, **kti*, **kt*, **ks* and **nts* need to be studied somewhat closer. Moreover, this is needed also because Sammallahti (1977: 13) has postulated only on the basis of **kt* > **tt* in Ugala and **kt* > **ht* elsewhere that Proto-Finnic has split first into South Estonian and into the rest of Finnic, i.e. into Ugala and Marin.

4.3.1. If Proto-Finnic has split into Marin and Ugala then **pts* > **ps* in Marin (cf. Finnish *lapsi* 'child', Votian *lahsi*, Estonian *laps*, Livonian *lāpš* (< **lapsi*)) and **pts* > **ts* in Ugala (cf. *lats* (< **latsi*) are cluster simplifications. For Ugala *ss* instead of *ts* in *nüssä-* 'milk (tV, V)', cf. on the other hand F *lypsää* 'to milk', V *lühssä* (-*hs-* < **-ps-*), E *lūpsta*, L *lipsō*; Ariste (1955: 319) has demonstrated that *ss* has been generalized into the whole paradigm from consonantal stems, cf. *nüss|nū?* 'milked (people)' (< **nūts|nük* < **nūpts|nūC*).

The other explanation of **pts* > **ps* is less transparent and therefore it will be dealt with in 4.3.3.

4.3.2. Changes of **kt* of two kinds: (1) changes before the final **i* (or, according to another explanation, before **j*, cf. Витко 1973) and (2) changes elsewhere.

Except in Ugala **kti* has doubtless undergone the change **ti* > **si*, cf. **kakti* 'two' > **kaksi* (F *kaksi*, V *kahsi*, E *kaks*, L *kakš*) and **läkti* '(he) went' > **läksi* (V *lähsi*, E *läks*, L *lekš*; F *lähti* results from an analogy). **ti* > **si* must have taken place before **kt* > **ht*. In Ugala either **kti* > **ksi* > **tsi* (Setälä 1899: 162; Kask 1972: 60) or **kti* > **kfi* > **ktsi* > **tsi* took place, cf. *kafs* (< **katsi*), *läfs* (< **lätsi*). If **ksi* became **tsi* here then either **kti* became **ksi* after **ks* became **ss* in Ugala (cf. **uksi* 'door' > **ussi* > *uss*) or Ugala nominative *uss* represents a case where **ts* has been replaced by *ss* on the analogy of other cases (thus Ugala *uss* has been explained in Setälä 1899: 162). However, **ksi* > **tsi* can be counterevidenced because the translative ending and the conditional mood suffix in Ugala have not undergone **ksi* > **tsi* but **ks(i)* > **ss(i)*, cf. *puuss* 'tree (translative)', *ussõss* 'door (translative)', *saass* 'get (cond.)', *lähäss* 'go (cond.)'. Hence

the change $*kti \gg *ktsi$ is more probable; no doubt, $*ti > *tsi$ here is a special case of $*ti > *si$. $*ktsi > *tsi$ may well be connected with $*kt > *tt$ in Ugala.

$*kt > *tt$ (and $*kts > *ts$) in Ugala can be explained as the assimilation of $*k$ before $*t$; analogically there could take place the assimilation $*kn > *nn$ in Ugala, cf. $*näk|nük$ 'seen (people)' $> nännü?$. Ugala $\acute{o}dag \sim \acute{o}dak$, however, reflects a single $*t$ instead of the geminate $*tt$, i. e. one should expect in modern Ugala the forms $*\acute{o}ttag \sim *\acute{o}ttak$ or, at least, $*\acute{o}tag$ ($*[e\acute{t}tao]$) $\sim *o\acute{t}ak$ ($*[e\acute{t}ta\acute{k}]$). (Although $\acute{o}tak$ 'evening (nsg)' really occurs in eastern dialects of Ugala the gsg form $\acute{o}dagu$ ($< *o\acute{t}akun$) reveals that t [$\acute{t}t$] in $\acute{o}tak$ results from the gemination of intervocalic single consonants that took place after a short stressed syllable if the third, final syllable was open; this gemination was followed by vowel apocopy and the final obstruent strengthening, i. e. $*o\acute{t}aku > *o\acute{t}aku > *o\acute{t}ak = *[e\acute{t}tao] > [e\acute{t}ta\acute{k}]$.) Geminate simplification in $\acute{o}dag \sim \acute{o}dak$ is hardly possible because of its uniqueness. Likewise $*kt > *t$, i. e. the loss of $*k$ has no reasoning behind it. Hence the explanation of $*kt > *tt$ by assimilation is somewhat doubtful.

The change of $*kt$ into $*ht$ in the Marin group can, in the framework of traditional historical phonetics, be explained in two ways. First one can declare $*kt > *st$ where $*st$ from $*kt$ like the original $*st$ underwent the all-Finnic shift $*s > *h$. However, $*k > *s$ is possible only via the palatalization of $*k$. As there is no reason for it this explanation is doubtful. Second, $*kt$ could become $*ht$ without an intermediate $*st$. Instead, there could be an intermediate stage $[\ast\chi t]$, where $[\ast\chi]$ was first an allophone of the phoneme $*k$. This explanation is apparently more probable. Then $*ht$ could appear in different dialects at different times and more or less independently. If so, then the development $*kt > *ht$ in Taro, Chude, Estonian and Livonian does not presuppose the existence of the Marin group.

Moreover, it is possible that even in Ugala the $*kt$ changed via $*ht$ (or $*\chi t$) where $*ht$ existed before $*s$ shifted to $*h$. This change is evidenced by (*ma*) $\acute{l}\acute{a}h\acute{a} \sim \acute{l}\acute{a}\acute{a}$ '(I) go', $\acute{l}\acute{a}h\acute{a}t \sim \acute{l}\acute{a}\acute{a}t$ 'you (sg) go' etc. that have remained unnoticed up to this time. Apparently $\acute{l}\acute{a}h\acute{a} \sim \acute{l}\acute{a}\acute{a}$ and other similar finite forms underwent an allegro change $*ht > *h$ before $*eC$ or $*\acute{a}C$, cf., on the other hand, $\acute{l}\acute{a}tt$ 'goes' ($< *l\acute{a}hte$ or $*l\acute{a}ht\acute{a}$). The same change has occurred in the corresponding Livonian stem $\acute{l}\acute{a}$ - ($< *l\acute{a}h$ -). In all other cases $*kt$ has undergone more or less regular changes both in Ugala and Livonian. The change $*ht > *t$ for Ugala $\acute{o}dag \sim \acute{o}dak$ can be viewed as a cluster simplification that took place in the single (originally) trisyllabic stem with $*ht$. In shorter stems $*ht > *t$ could not take place intervocalically as then it would have resulted in extensive stem alternation, e. g. $*katsi : *kat\acute{o}|n : *ka|ta$ 'two (nsg, gsg, psg)'. $*ht > *tt$, $*hn > *nn$ could be assimilations with the purpose of eliminating the new phoneme $*h$.

Hence, there is no need to presume the split of Proto-Finnic into Ugala and Marin in order to explain the changes of $*kt$ into $*tt$ and $*t$ in Ugala and into $*ht$ elsewhere. As $*kti$ became $*tsi$ via $*ktsi$ one must not presume that $*ks$ became $*ss$ in Ugala already before the (Proto-)Finnic change $*ti > *si$. But now it must be checked up whether $*kti > *ktsi$ ($> *htsi$) was a change characteristic of Ugala or whether it can be considered a Proto-Finnic change.

4.3.3. If Proto-Finnic had $*kts$ then changes of both $*kts$ and $*pts$ are conditioned by a tendency to simplify complicated consonant clusters.

Probably already in Proto-Finnic clusters of four consonants $*jst|t$,

pts|t*, **nts|t* were simplified by dropping the second component **t*, e. g. **vājstā* > **vājstā* 'knife (psg)', **lapista* > **lapsta* 'child (psg)', **kūntstā* > **kūnstā* 'nail, claw (psg)'. In Neva and Livonian **ps* was generalized from such forms into the whole paradigm, in the process the simplification **pts* > **ps* pulled along all cases of **pts* and even **kts* or, rather, **hts*, cf. **lūpsā-* > **lūpsā-* 'milk', (kaksi* >) **kahtsi* > **kahsi* (> **kaksi*). (Note, however, that the cluster **hts* might be ruled out by the morpheme structure conditions, i. e. **hts* could become directly **ks*.)

At Stage II a semivowel preceded by a vowel was reinterpreted as a vowel in Neva and Ugala, e. g. **vājstā* ~ **vejstā* > **vāistā* ~ **veistā* (note that final components of Livonian phonetic diphthongs and triphthongs [i] and [u] are morphophonologically still consonants). Then, on the analogy of **vāitsi* ~ **veitsi* (nsg) : **vāistā* ~ **veistā* (psg) in Neva and Ugala the first stop in clusters consisting of stop + *s* + stop was dropped, e. g. **lapsta* > **lasta* 'child (psg)', **uksta* > **usta* 'door (psg)', **sormuksta* > **sormusta* 'finger ring (psg)' whereas Livonian retains the clusters, cf. *lapstā*, *ukstā*, *sūormōkst*. According to Setälä (1896: 166, 196), however, even Livonian has once omitted the first stop and then, on the analogy of other case forms, restored it; nevertheless there is no known motivation of such a drop in Livonian. But one can suppose that in Livonian on the analogy of the partitive form the stem *veis* was generalized into the whole paradigm and that the stem *seis* 'seven' (< **sājtsem*) owes its shape to the analogy of the stem *veis*; both *veis* and *seis* have remained unexplained in Posti (1942: 169) whereas Setälä's supposition (1896: 180) that both stems represent regular developments is obviously incorrect. (Note that the reconstruction of **ä* in **sājtsem* 'seven' and **vājtsi* 'knife' is based on Ugala, cf. U *säidse* (nsg) : *säitsme* (gsg) and *vāits*, whereas all other Finnic dialects have *e* instead of *ä*. As in Livonian **āj* has become *ej* [ei] everywhere except before **v* then *e* in Livonian *seis* and *veis* probably results from this change. On the other hand, *e* in F *veitsi* 'knife', *seitsemän* ~ *seitsem* 'seven', V *seicee*, E *seitse* may well be connected with **ä* > **e* for correspondences 34 and 35 at Stage I. Proto-Finnic **ä* seems to be supported by Lappish *čiežä* 'seven' as *ie* is the normal reflex of Proto-Finnic **ä*.)

In Ugala, probably on the analogy of **vāitsi* (nsg) : **vāistā* (psg) the postvocalic stop was dropped in the paradigm **laptsi* : *lasta* and also in other cases of **pts*. It is possible that **pts* > **ts* pulled along even **hts*, e. g. **kahtsi* > **katsi* 'two'; cf., however, 4.3.2.

4.3.4. Apparently all changes of **pts* and **htsi* are better accounted for outside the splitting of Proto-Finnic into Ugala and Marin than in the framework of that. Likewise are then best explainable such all-Finnic changes as the change of **š* into **h* everywhere and the change of **s* into **h* intervocalically when preceded by a sequence of two vowels in the first syllable or by a vowel in a nonfirst syllable, cf. **mureš* : *mureše|n* : **mureš|ta* > **mureh* : **murehe|n* : **mureh|ta* 'anxiety (nsg, gsg, psg)'; **maa* : **maa|san* : **mai|sin* > **maa* : **maa|han* : **mai|hin* 'land, country (nsg, illsg, illpl)', **kirves* : **kirvese|n* : **kirves|tä* > **kirves* : **kirvehe|n* : **kirves|tä* 'ax (nsg, gsg, psg)'. If in Proto-Finnic **kt* became **ht*, then **š* > **h* was not an unexpectedly strong shift but both **š* > **h* and **s* > **h* were mergers that expanded the hitherto narrow range of the phoneme **h*.

As by the beginning of **š* > **h* and **s* > **h* **h* was lost in most cases in Ugala, cf. (**kt* >) **ht* > {**t* **tt*}, it is possible that **š* and **s* became **h* first elsewhere than in Ugala, i. e. in Neva and/or in Livonian. At any rate, the rise of the new **h* became possible only after at Stage

II (a) *šejmo ~ *šajm̃ was borrowed into Finnic, (b) *Vj became *Vi in Neva and Ugala and (c) *ht became *tt in Ugala.

4.3.5. There are only two Finnic stems that have or could have the cluster *nts.

Ugala has still retained the difference between the single stem ending in *-ntsi in nsg and the stems ending in *-nsi (< *-nti) in nsg, i. e. between the *ntse- and *nte-stems, cf. *küüds* : *küüdse* : *küüst* 'nail, claw (nsg, gsg, psg)' and *kaas* : *kaase* : *kaast* 'lid (nsg, gsg, psg)'. Elsewhere *ntse- and *nte- stems are similar, cf. F *kynsi* : *kynnen* : *kynttä* and *kansi* : *kannen* : *kannta*, V *čüüsi* : *čünnee* : *čünttä* and *kaasi* : *kannõõ* : *kannta*, E *küüs* : *küüne* : *küünt* and *kaas* : *kaane* : *kaant*, L *kintš* : *kind* : *kintõ* and *kõntš* : *kõnd* : *kõntõ*.

Apparently in Neva *-ntsi > *-nsi. One may even suspect that this change was preceded by *-nti > *nt'i > *-ntsi, cf. *-kti >> *-ktsi in 4.3.2; still *-nti >> *-ntsi here is highly improbable, being evidenced only in Livonian whereas *-kti > *-ktsi was a Proto-Finnic change. In Maa *n was assimilated to the preceding vowel before *s at Stage III, cf. 3.1.3. In other case forms of the *ntse-stem the final *s was dropped from the cluster probably on the analogy of *nte-stems.

In Livonian *-nti has become *-ntsi either directly or via *-nsi as elsewhere in Finnic. Except for *-ntsi, *nts of the *ntse-stem became *nt on the analogy of *nte-stems as in Neva.

In Ugala *n was assimilated to the preceding vowel before *s in *nte-stems (as in Maa) and on their analogy in the single *ntse-stem. Later *t has been replaced by *s in the whole paradigm of *nte-stems.

Hence the single *ntse-stem has been in one way or another influenced by *nte-stems in Neva, Livonian and Ugala. For this reason there are no grounds for deciding whether the *ntse- and *nte-stems partially coincide with each other because of a common change or independent changes.

The loss of the nasal in the etymological counterparts of Livonian *võntsa* in other Finnic dialects is unique in the sense that it is retained only in Livonian. (There is one comparable case, cf. F-V *tuttava*, E-U *tuttav*, L *tuntõb* 'acquaintance; acquainted, known', nevertheless the Livonian word here can be and probably is nothing else than the regular passive present participle of *tundõ* 'know, be acquainted', cf. F *tunnettava*, E-U *tuntav*.) Therefore *võntsa* can be viewed as an argument for the split of Proto-Finnic into Peipsi and Livonian. Then, first, *nts > *ts can be a Peipsi change that took place in *a-stems. It can constitute a specific case of *ntC > *tC which involved also the nominalized passive present participle *tunttapa whereas later a new participle was formed. Second, as *nts* in *võntsa* comes from Proto-Finno-Ugric *ñc whereas *nts in *küntsi comes from Proto-Finno-Ugric *ñc *ñ > Ø before a consonant can be considered a regular change in Peipsi (if a change in a single possible case can be viewed as a regular one). However, there seems to be nothing that hinders considering either of the two changes, *nts > *ts (or *ntC > *tC) or *ñ > Ø to have taken place as late as at Stage II in Neva-Ugala.

4.3.6. In 4.3.1—4.3.5 no essential arguments in favor of any of the three possibilities of the splitting of Proto-Finnic were found. Only changes of *kt can be worst explained when accepting the split into Ugala and Marin. Other possibilities deal with identical changes, their difference being in the number of stages that capture the features characteristic of Livonian versus Neva-Ugala. Until no essential counterarguments are found the minimal number of stages and hence the split into Neva and Koiva is preferable.

4.4. Fourth, the interrupted area of Taro and Chude dialects on the southern coast of the Gulf of Finland deserves special attention: one part of the Viru dialects is separated from another, Kukkuzi Votian, Lower Luga Ingrian and Lower Luga Finnish by Alu while Vaiga and Alu are separated from Votian proper by Vaivara Viru, Kukkuzi Votian, Lower Luga Ingrian and Lower Luga Finnish.

There is a theory that Vaivara having been laid waste in wars received its language of the Finnish type relatively recently from new settlers who arrived here either from the North or North-East (Saareste 1952: 109; Raun, Saareste 1965: 96). However, although the Lower Luga Ingrian and especially Finnish population is of relatively late origin and although Ingrian has had an essential role in the formation of the East Vaivara dialect (Toomse 1938; Ariste 1962) there is no reason to think that the Vaivara and Kukkuzi dialects owe their lack of *õ* to Ingrian or Finnish influence or, more generally speaking, that Viru and Kukkuzi were Estonian or Chude dialects that have been Taronized up to the loss of *õ*. (Only Central Vaivara which has *o* even for such Chude-Estonian-Ugala-Livonian *õ*-s whose reflex in Taro is either *e* or *i*, e.g. *ohta* 'evening', *soper* 'friend', *sosar* 'sister', *torva* 'tar', *vorkku* 'net', *vueras* (< **voeras*) 'strange, foreign, alien; stranger, foreigner, guest' (cf. also Kettunen 1962: 127, 132, 200) is different: here the former Alu vowel system has been replaced by that of Viru, at the same time, however, not all counterparts of Alu *õ* have been learnt.)

If Viru and Kukkuzi were Taronized Estonian or Chude dialects, then it would be strange that all Taro counterparts of numerous *õ*-s have been perfectly learnt whereas in Viru the initial *t-* of Estonian and Alu *tõsta* 'lift, raise, heave' and *tõusta* 'rise, get up' has not been replaced by the normal Taro counterpart *n-*, cf. Viru *tosta* and *tousta*, and in Kukkuzi the Votian *-hs-* from **ks* has not been replaced by its regular Taro counterpart *ks*, cf. Kukkuzi *ohsa* 'branch, bough, spray'. Rather the opposite holds: Viru and Kukkuzi have been influenced by Estonian and/or Chude dialects. Moreover, most of the Chude traits in Vaivara and Kukkuzi are either morphological or have the form of phonological rules, e.g. *st* > *ss* and *ks* > *hs* in Kukkuzi. Moreover, a part of these morphological Chude traits occur also in Lower Luga Ingrian and Finnish dialects (Ляаһест 1966: 149—152; Leppik 1975: 191), partially maybe more due to the influence of earlier Taro dialects than due to the direct influence of Chude on the Ingrian and Finnish dialects of the new settlers. There are some cases that are neither morphological nor have the form of phonological rules. First, note Chude *i* in the nouns *niula* 'needle' and *siula* 'sieve' in Vaivara (I have no corresponding data about Kukkuzi). However, it is possible that even this case was interpreted as **e* > **i* before **kl* (later **k* > *u* before a sonorant), cf. **õ* > *i* in Votian and elsewhere in Chude at Stage VI. Second, note Kukkuzi *peesas* 'bush' where **n* has been assimilated to the preceding vowel as it never has been in Taro and even in Kukkuzi, still it may have been borrowed directly from Chude.

It seems that Viru and Kukkuzi represent rather early Taro populations in Estonia and Ingermanland: the ancient parishes of Rāpala and Mahu (i. e. Haljala and Viru-Nigula) have been continuously inhabited from the second half of the first millennium B. C. and the northern part of Vaivara from the end of the first millennium B. C. whereas the Purtse River basin on the territory of Alu has been from inhabited at least the middle of the first millennium B. C. Although there are no corresponding data from Ingermanland it can be claimed that by the beginning of our era two Viru groups were established that were separated from each other by

Alu and that by the same time the Votians had departed from Alu and were separated from them by ancestors of the Vaivara and Kukkuzi people and, possibly, some other Taro people who became later Ingrianized. It remains unclear whether the Kukkuzi ever belonged to the same Viru group as Vaivara. But it is quite understandable that the Virus and Chudes living in Estonia were later called Estonians. Concerning the Kukkuzi people, it seems that they were regarded as Votians simply because they were not Ingrians or Finns as were the latest Taro settlers.

5. Conclusion. Above the rise and development of \bar{o} and the possible ways of the formation of Finnic dialects were discussed. In the course of the discussion Proto-Finnic and six following stages were distinguished. These seven stages (0 — VI) are defined by the patterns stems or innovations listed below (in parentheses the sections where the patterns, stems or innovations have been dealt with are indicated). Those innovations that cannot be dated precisely are presented separately.

0. Proto-Finnic: $*kti > *ktsi$ (4.3.2, 4.3.3); $*kt$ (incl. $*ktsi$) $> *ht$ (4.3.2); $*ptst > *pst$, $*ntst > *nst$, $*jtst > *jst$ (4.3.3).
- I. a. Neva: $?*a > *o$ (3.1.1), $*C^1eC_1^2\bar{a}$ (3.1.1), $?*C^1eC_1^2o$ (3.4), $*\bar{a} > *e$ (3.1.1, 4.3.3).
 b. Koiva: $*o > *u$ (3.1.1), $*C^1aC_1^2a$ (3.1.1, 3.4), $*C^1eC_1^2a$ (3.1.1), $*ht > *h$; $*l\bar{a}ht- > *l\bar{a}h-$ (4.3.2).
- I—II. Neva: $*pts > *ps$ (4.3.3), $*hts > *hs > *ks$ (4.3.3), ($?*nti > *ntsi > *nsi$ (4.3.5)), $*nts > *nt$ (4.3.5).
- II. a. Neva-Ugala: $*Vj > *Vi$ (4.3.3); $*šejmo \sim *šeimo$ (3.1.2); $*lijka \sim *liika$ (3.1.2); $*pst > *st$, $*kst > *st$ (4.3.3), $*ñts \sim *nts > *ts$ (4.3.5).
 a. α . Ugala: $*pts > *ts$ (4.3.3); $*ht > *t$: $*\bar{o}htako > *\bar{o}tako$ (4.3.2); $*ht > *tt$ (4.3.2), $*hts > *ts$ (4.3.2, 4.3.3).
 b. Livonian: $*šajm\bar{z}$ (3.1.2), $*lejka$ (3.1.2).
- II—VI. Livonian: $?*u > *o$ (3.1.2); $*o > *u$ (3.1.2), $*a > *o$ (3.1.2), $*hts > *hs > *ks$ (4.3.3), $*nts$ (excl. $*ntsi$) $> *nt$ (4.3.5), $*nsi > *ntsi$ (4.3.5).
- III. a. Maa-Ugala-Livonian: $?*u > *o$ (3.1.3); $*e > *\bar{o}$ (3.1.3), $*o > *\bar{o}$ (3.1.3), $*\bar{o} > *e$ (3.1.3), $?*o > *e$ (3.1.3); $*Vns > *VV\bar{s}$ (3.1.3, 4.3.5).
 a. α . Maa-Ugala: $*e > *\bar{o}$ (3.1.3).
 a. β . Ugala-Livonian: $*e > *\bar{o}$ (3.1.3).
 a. γ . Ugala: $*Vntsi > *VVtsi$ (4.3.5).
 a. δ . Livonian: $*e > *\bar{o}$ (3.1.3).
- III—VI. Taro: $*e > *i$ (3.1.3); $*o > *e$ (3.1.3).
- IV. Maa-Ugala: $?*u > *\bar{o}$ (3.1.4); $?*u > *o$ (3.1.4), $*o > *\bar{o}$ (3.1.4).
- V. Maa: $*o > *\bar{o}$ (3.1.5); $*a > *\bar{o}$ (3.1.5).
- VI. a. Chude $*o > *\bar{o}$ (3.1.6).
 b. Estonian: $*e > *i$ (3.1.6); $*e > *\bar{o}$ (3.1.6), $*\bar{o} > *o$ (3.1.6), $*\bar{o} > *e$ (3.1.6).

Hence, Erkki Itkonen's theory about the conditions for the rise of \bar{o} is in principle correct. However, the history of \bar{o} has proved to be more complicated than could be anticipated. Moreover, even the study of the history of \bar{o} shows that the formation of Finnic dialect groups and tribes has been far more complicated than hitherto claimed. At least it should be emphasized that the formation of the Finnic tribes and dialects did not end with the processes dealt with above.

Abbreviations

adj — adjective, **adv** — adverb, **gsg** — genitive singular, **illsg** — illative singular, **inf** — infinitive, **iV** — intransitive verb, **nsg** — nominative singular, **pcple** — participle, **ppl** — partitive plural, **psg** — partitive singular, **s** — substantive, **sg** — singular, **tV** — transitive verb.

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ТИИТ-РЕЙН ВИЙТСО (Таллин)

ИСТОРИЯ *õ* ПЕРВОГО СЛОГА В ПРИБАЛТИЙСКО-ФИНСКИХ ЯЗЫКАХ

Отсутствие или наличие в первом слове фонемы *õ* [ɛ̯ ɛ̯ɪ] делит прибалтийско-финские диалекты на пять групп, причем существует 32 типа межгрупповых соответствий с *õ*. Следует допустить, что в праприбалтийско-финском языке не было **õ*; если же в первом слове наличествовала **e*, то в пределах слова не было **a*, а в пределах того же корня — также **o* и **u*. Тогда развитие межгрупповых соответствий с **õ* наилучшим образом можно описать в рамках гипотезы об относящихся к шести последующим эпохам диалектных группах и диалектных союзах. (Разные диалекты образуют союз, если имеют хотя бы одно общее новшество). В ряде диалектов **õ* возникла путем передвижения **e* > **õ* для установления гармонии гласных в нарушающих ее заимствованных последовательностях $C^1eC_1^2a$ и $C^1eC_1^2o$, а также в деривационных основах тех же типов, потерявших морфофонологическую связь с исходным корнем. Все остальные проявления **õ* в разных диалектах представляют собой либо отдельные случаи расширения сферы применения новой фонемы **õ*, либо поздние перестройки.

История *õ* позволяет утверждать, что имелись пять прибалтийско-финских племенных диалектов, из которых соответственно происходят все диалекты современных языков: 1) тароский — вируский диалект эстонского языка (включающий говоры приходов Йыэляхтме, Куусалу, Хальяла, Виру-Нигула и северной и восточной части Вайвара), диалект с. Куровицы (Kukkuzi) водского языка, все ижорские, финские, карельские, людиковские и вепские диалекты; 2) чудский — алуский диалект эстонского языка (включающий говоры приходов Люганусе и Йыхви, а также часть говоров Вайвара и Ййзаку), вайгаский (т. н. восточный) диалект эстонского языка и все собственноводские диалекты (т. е. все кроме диалекта с. Куровицы); 3) эстонский — североэстонские диалекты, в том числе литературный; 4) угалаский (южноэстонский) и 5) ливский. Итак, в современные эстонский и водский языки входят диалекты различного происхождения.

На основе истории **õ* можно утверждать, что чудский и эстонский диалекты возникли в результате распада племенного диалекта маа, а маа и тароский диалекты — в результате распада неевского племенного диалекта. Хотя развитие праприб.-ф. **pts*, **kti*, **kt* и **ksi* может служить основой для гипотезы о распаде праприбалтийско-финского языка на угалаский и морской (последний в свою очередь распадал на невский и ливский) диалекты, развитие праприб.-ф. **nts* — основой для гипотезы о распаде его же на ливский и пейпсиский (последний в свою очередь распадал на невский и угалаский) диалекты, в рамках гипотезы о распаде праприбалтийско-финского языка на невский и койваский диалекты развитие этих сочетаний объяснимы одинаково хорошо или даже лучше.