# SECOND LANGUAGE LEARNERS' IMPACT ON THE STRUCTURE OF ESTONIAN

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## Introduction

We are living in an age of ever-increasing global information exchange. This process leaves its impact on both the world languages and the so-called less-used languages. In this paper I will first give an overview of the types of changes that usually result from various contact situations. Then I proceed to the analysis of Estonian in respect of the possible contact-induced changes, particularly the impact of imperfect learning of Estonian by second language learners, on the structure of Estonian. Finally, I consider the possible consequences of such changes to the fitness of Estonian to function in the modern world as an effective tool of communication.

## Contact-induced changes: a typology

Sarah Thomason and Terrence Kaufman (1991) in their extensive and excellent book "Language contact, creolization and genetic linguistics" outline two major mechanisms of contact-induced changes: borrowing and the substratum/adstratum influence. Both of these changes depend on the type of sociolinguistic situation prevailing in the linguistic community or communities affected by the contact. The structural features of the languages concerned are of secondary importance. As their study has shown, almost everything can be transferred from one language to the other, provided that there is a sufficiently intense and/or long contact. However, there are differences about what features and in what order are transferred under different types of influence.

According to Thomason and Kaufman (1991), in case of borrowing the first to be borrowed are content words, mainly cultural or technological terms. In case of a more intense contact, items of the basic vocabulary and grammatical words (conjunctions and adverbs) are borrowed, under a heavy influence also central structural features such as new distinctive features in phonology, and new inflectional affixes in morphology are borrowed, and also the basic word order may change.

In case of substratum/adstratum influences changes first appear in phonology and syntax. Morphosyntactic features are also likely to be transferred. The influence on vocabulary, is, however, not extensive, including mainly words with a specific cultural meaning. Only in extreme cases of the substratum/adstratum influence, lexical items in everyday use are transferred.

Certainly, the strength of the impact primarily depends on the extent of the contact; in case of borrowing, it is the rate of bilingualism in the borrowing language, whereas in case of substratum/adstratum influences it is the number of people switching their language. As Thomason and Kaufman (1991) claim, substratum/adstratum influences appear in a language quickly, mostly within one generation, whereas borrowing may take considerably longer to achieve comparable structural consequences.

Thomason and Kaufman's typology of contact-induced changes is very useful if one is concentrating on structural interferences of one grammatical structure with the other, but one should note that language contact does not necessarily mean sharing grammatical features. In special circumstances, imperfect learning which is characteristic of contact situations may induce changes that cannot be identified as grammatical interference.

Imperfect learning is not confined to contact situations only. To some extent it is characteristic of normal L1 acquisition as well. As numerous studies of language acquisition have shown, learning linguistic categories usually has a three-phased U-shaped pattern (see Plunkett and Marchman 1993 and references cited therein).

For example, learning the past tense forms of English, the first instances that L1 learners produce are generally correct, both regular forms (such as *walked*) or irregular ones (*ate, saw*). This period is followed by a stage when irregular verbs are inflected incorrectly as if they were regular. Finally such errors start to decrease until the complete system is acquired.

It seems to me that L2 learning generally follows the same pattern, although L2 teaching practice usually takes a different path where both regular and irregular patterns are taught simultaneously. However, I do not think that even very good L2 learners can acquire the boundaries between an irregular and regular pattern at the moment when they are taught: at best they need to practice to get them right, and in many cases they never learn the whole pattern in full.

When imperfect learning is confined to a few single individuals, it remains on the idiolectal level without any significant impact on the grammar of the language. However, a large number of imperfect learners can cause changes in the language learned which in most cases will bring about a reduction of structural complexity, mainly in the domains of morphology and syntax. In short, the mechanisms and effects of contact-induced changes can be summarised as follows:

| Impact on | borrowing | substratum/adstratum | imperfect learning |
|---|---|---|---|
| lexicon | strong | weak | none |
| phonology | weak | strong | none |
| morphology | moderate | strong | strong |
| syntax | moderate | strong | strong |

The impact of imperfect learning on lexicon is characterised as nonexistent, since the lack of knowledge of certain lexical items will not affect the others who know them. In phonology imperfect learning is indistinguishable from substratum/adstratum influences as it means here retaining some of the learner's L1 features in his/her L2 phonology. But let us now turn to the situation in Estonia.

## Contact-induced effects on Estonian

It seems that Estonian is currently undergoing a period of turbulence and change, at least the situation has fuelled a steady discussion amongst Estonian linguists. There are also a few articles on recent contact-induced changes in Estonian (Hint 1990, 1996, Erelt and Metslang 1998, Liivaku 1997). At present the changes are by no means drastic, but there are fears that the worst is yet to come (Vääri 1999).

Considering the three mechanisms that can bring contact-induced changes to the language, it seems to me that in the near future, Estonian will be most affected by borrowing and imperfect learning, while substratum/adstratum influences are likely to remain insignificant.

Considering borrowing, it is likely that a very large number of Estonians will use foreign languages, mostly English, but also some others in their work, mainly passively through the Internet, but in many cases also actively. Considering also the very noticeable dominance of American entertainment in Estonia, English words will continue to be borrowed. Some of them are to remain in Estonian, some will fall out of usage when the trend changes. I do not expect any borrowings in phonology and morphology, but some syntactic features, especially some word order patterns such as *XSVO* (*Vaieldamatult maaomanikud ootavad seda seadust* 'Undoubtedly the land owners are awaiting this law') or 0-subject (*Seal on veidi leiba laual* 'there is a little bread on the table') are likely to become more frequent. I do not consider moderate syntactic borrowing particularly dangerous to Estonian; it is certainly less harmful than extensive lexical borrowing which damages linguistic morale as it will eventually disseminate a sense of impurity and self-disrespect. I think a state policy should be applied here with appropriate funds to carry it out. I know this is done in the field of legal language, but it needs to be extended to other areas as well, particularly to the IT domain. The first step to be taken is for the government to start negotiations with Microsoft for translating office software into Estonian.

As regards the possible substratum/adstratum influence on Estonian, (then) it is unlikely in the light of what is known about such developments. According to Thomason and Kaufman (1991) substratum/adstratum influences are most likely to occur when a large population shifts rapidly (within one generation) to a new language. When the process takes more time, the shifting population is likely to have a better command of the new language and therefore the influences are likely to remain smaller. It seems that in Estonia no rapid shift of Russians to Estonian is going to happen. The non-Estonian population in Estonia is likely to first become and then to remain bilingual for quite a long time. This means that I do not believe any significant Russian influences on Estonian morphology, such as new case or aspect markers, neither do I believe any strong influences on phonology (for example, loss of phonemes or addition of new ones). However, some changes in the usage and meaning of words, and some morphosyntactic features may well converge to Russian patterns.

What I expect to influence Estonian most in the coming decades is the impact of imperfect learning. I believe that a widely spread bilingualism amongst Russians living in Estonia is achievable, and if it turns out to be so, the Estonian speech community is facing a large number of speakers of Estonian as their second language. It is perhaps the first time over many centuries that such a sociolinguistic situation arises in Estonia. And this will certainly bring about changes in the grammar of Estonian, particularly in morphophonology, morphology and morphosyntax. But before turning to a more detailed prognosis of these changes, let us first consider the importance of imperfect learning to grammar and to what is called "the fitness of a language" to use the concept introduced by some linguists in discussion about the language death in the electronic Linguist List in winter 1999.

## Criteria for communicative fitness

The main function of language is to enable communication. Different languages compete with one another as tools of communication. The main criteria for fitness of a language are the amount of available information in it as well as its usefulness in social interaction. These factors primarily depend on non-linguistic factors such as the number of speakers as well as the cultural and economic wealth of the population using it.

To a lesser extent, structural features also contribute to fitness. It seems that the most important principle for structural fitness is iconicity, the principle that the mapping between form and meaning has preferably a one-to-one relationship. Certainly, this principle is the main factor facilitating learnability: a language that has fewer irregularities in grammar is more easily learned than a language full of irregularities and non-transparent forms. Therefore, *ceteris paribus,* a more easily learnable language has an advantage in the natural selection, as the number of its speakers can be increased at smaller costs.

On the other hand, language is also a strong token of identity. This feature works against natural selection, since its reason is not pragmatic, but cultural. For example, even an otherwise relatively unfit language may survive well, to the extent that it is needed as a token of identity. Thus, the fate of a language is a function of its fitness and its usefulness as a means of identity.

I skip the other aspects and note that structural fitness of a language primarily depends on the impact of imperfect learning of either L1 or L2. If we look at the evolution of languages, we can see that the grammatical opacity and irregular forms are brought to language through sound changes that erase morphological affixes and change the stem in some forms but not in others. A good example here is the set of changes that created the Estonian grade alternation. For some stems these (and other) sound changes have created as many as four different allomorphs, e.g. *käsi: käe: kät-: kätte* 'hand'. Such alternations remain in a language until a second type of the change, the so-called analogy restores the transparency (or at least reduces the complexity) by replacing the allomorphs by

a single, non-alternating stem. My claim is that such analogy is brought to language by imperfect learning. Thus, the impact of imperfect learning inherently increases fitness and should therefore be considered a welcome change. But let us turn back to the situation in Estonia.

## The impact of imperfect learning on Estonian

If one is to evaluate structural fitness of Estonian, she/he must conclude that the situation is quite bad. Estonian grammar is full of stem alternations, both prosodic and segmental. In most of the cases these alternations do not have any functional role, i.e. they do not contribute to the expression of meaning. There is also extensive affix allomorphy in Estonian which means that there are sometimes as many as four different ways to inflect a case form, all of them in a complementary distribution. For example, the partitive singular can be formed by affixes *-da* {*seda*), *-d* (*puud*}, *-Ø* (*pesa*), and *-t* (*kõnet*). Furthermore, in some morphological types case forms are inflected by a very complex set of stem-vowel alternation rules *pohla → pohli, leiba → leibu, uba → ube,* etc.) that even native speakers are not able to acquire correctly. For example, a recent study of a student of mine (Rosenfeld 2000) has shown that teenage native speakers of Estonian produce as many as 38% of such forms incorrectly in their oral speech. The results of the written test were only marginally better.

Obviously, the grammatical complexity of Estonian is due to the sociolinguistic situation that has prevailed in Estonia over the last thousand years. Estonian has mainly been an in-group code that was in no significant extent learned by outsiders. This means that for centuries the impact of imperfect learning never reached the threshold that would have triggered analogy and erased some of the complexity. I do not claim that there has been no analogy at all, but certainly it has not reached any significant level to counterbalance the effects of sound changes. Now, after many centuries the situation is about to change. Let us see what impact second language learners could cause on the structure of Estonian. In phonol-

ogy it might be expected that the difference between Q2 (the long quantity) and Q3 (the overlong quantity) is likely to be obscured further, with a possible loss in the future. The reason is that the difference has a very small discriminatory value (its main task is to distinguish between the genitive and partitive cases for certain nouns). However, studies show that even native speakers do not pronounce Q3 in conversational speech correctly, so that the majority of these forms cannot be recognised by listeners if taken out of the context (Krull 1998). Most L2 learners are not able to learn the three quantity degrees at all, substituting the system of the ternary length opposition by a binary short-long distinction where the long counts for both Q2 and Q3. I totally agree with Cornelius Hasselblatt (1995, 1999) and some practising teachers of Estonian who say that teaching the Q2-Q3 distinction to L2 learners is absolutely unnecessary.

The largest changes of imperfect learning are likely to happen in the domains of morphophonology and morphology. First, a reduction of Estonian stem alternation is expected. While it is unlikely that high frequency words such as *käsi: käe: kätt* ('hand' sg. nom., gen. and part.) *or pood: poe: poodi* (shop' sg. nom., gen. and part.) will lose their stem alternation, a large number of infrequent words are very likely to undergo analogy. For example, there are three types of nouns ending in *-s*, but having a different pattern of alternation:

| Nominative | Genitive | Partitive | Pl. part. | |
|---|---|---|---|---|
| *armastus* | *armastuse* | *armastust* | *armastusi* | 'love' |
| *tunnus* | *tunnuse* | *tunnust* | *tunnuseid* | 'feature' |
| *lammas* | **lamba** | *lammast* | *lambaid* | 'sheep' |

Yet the system could be simplified by simply applying analogy:

| Nominative | Genitive | Partitive | Pl. part. | |
|---|---|---|---|---|
| *armastus* | *armastuse* | *armastust* | *armastuseid* | 'love' |
| *tunnus* | *tunnuse* | *tunnust* | *tunnuseid* | 'feature' |
| *lammas* | *lammase* | *lammast* | *lammaseid* | 'sheep' |

This is just an example and I do not claim that this is the place where analogy is likely to hit. This could be predicted experimentally, but I have no data as yet to be more precise. But in any case, I see this as a welcome process and I recommend teachers of Estonian not to spend too much time on correcting the errors of imperfect learning: these errors will decrease by themselves when the learners become more fluent. Or alternatively, these errors will start to be repeated by others until they cease to be errors and will become a new norm.

The second area of complexity is the plural partitive formed by stem vowel alternation. This alternation has a set of 6 rules among which only one (i → e) is productive, whereas the rest cause mistakes in about 20% of cases. Some examples for these rules are presented below:

| Sg. Part. | Rule | Pl. Part. | |
|-----------|------|-----------|---|
| *rada* | $a \rightarrow u$ | *radu* | 'footpath' |
| *pesa* | $a \rightarrow i$ | *pesi* | 'nest' |
| *muna* | $a \rightarrow e$ | *mune* | 'egg' |
| *kuuske* | $e \rightarrow i$ | *kuuski* | 'fir' |
| *kassi* | $i \rightarrow e$ | *kasse* | 'cat' |
| *kändu* | $u \rightarrow e$ | *kände* | 'stump' |

However, the same form can also be derived by a regular agglutinative suffix *-sid* (*radasid, pesasid, munasid,* etc.) but at present it is used only marginally. Thus, the *sid-partitive* at least has a potential to spread through imperfect learning. A lot of learning time could be saved if teaching could concentrate on *sid*-partitive, leaving the flectional partitive for passive usage. The same teaching strategy could be recommended for teaching L1 as well. Should this change happen, it would also help reduce the number of Estonian noun declination types. Consider the following table presenting the types of noun declination:

| Type | Example | Sg. Part. | Pl. Gen. | Pl. Part. |
|------|---------|-----------|----------|-----------|
| I | *õpik* | -t | -te | -id |
| | *hammas* | -t | -te | -id |
| | *liige* | -t | -te | -id |
| | *aasta* | -t | -te | -id |
| II | *suur* | -t | -te | V |
| | *harjutus* | -t | -te | V |
| III | *kõne* | -t | -de | -sid |
| IV | *idee* | -d | -de | -sid/-id |
| | *koi* | -d | -de | -sid |
| V | *pesa* | Ø | -de | -sid/V |
| | *sõda* | Ø | -de | -sid/V |
| | *jalg* | Ø | -de | -sid/N |
| | *sepp* | Ø | -de | -sid/V |

It is interesting to note that taking the dictionary count, 60% of the stems belong to type I, and 36% to type V. The remaining 4% are scattered between types II–IV. Of course, the percentages might be somewhat different if usage data were taken as the basis of calculation. Yet, if we look at the types, the main bulk of complexity is connected with plural partitive and comes from a small set of words. Thus, if the rules of plural partitive could be simplified by expansion of *sid*-partitive, a single shift of the *harjutus*-subtype to type I (*harjutuseid*) would reduce declinational complexity to two main patterns (types I and V) with minor variations in singular partitive and plural genitive.

Bearing in mind the U-shaped learning of morphology, I believe that teaching the morphological types should take a similar approach: only two main types should at first be presented to the learner. The rest of the patterns should be introduced later as exceptions. By the way, one of my former students has elaborated a precisely similar model of Estonian morphology (see Tammjärv 1998) and is using it very successfully in teaching Estonian to Russians.

What concerns Estonian morphosyntax, its main area of complexity is connected with the formal possibilities of the direct

object which can have the form of a total or partial object. Central in this system is the partial object which is used with negation **or** if the action is unfinished or if a part of the object is involved. The total object is used only in the affirmative mood **and** if the action is finished **and** if the whole object is involved. The partial object is always in partitive, but the total object is either in genitive or nominative. Thus, the main source of complexity in this subsystem comes from the complex rules of the total object.

For L2 users these rules are very hard to learn and even native speakers err with more difficult cases. I have superficially studied the use of the direct object in the writings of non-native speakers of Estonian and have noticed two tendencies: 1) in the personal voice, the partial object tends to be overused, 2) in the impersonal voice the total object in nominative tends to be overused. For example:

1) *Kirja kui tegevusliiki võib kujutada ette operatsioonide järjekorra näol, mis moodustavad terviklikku iseorganiseeruvat funktsionaalset süsteemi.* 'Writing as an activity can be imagined as an ordered set of operations that form a complete self-organising functional system.'

2) *Mõnikord proovitakse ületada taolised takistused kordamise teel.* 'Sometimes these obstacles are tried to be overcome by repetition'. This suggests that the system has a potential for a reanalysis that could finally reduce its formal and conceptual complexity. In personal finite verbs the usage of the object in partitive will probably increase, and with impersonal finite verbs, with nonfinite verbs and with kvantors the object in nominative will increase. At the same time, the functions of the total object shift to a lexical expression by affixal adverbs such as *läbi,* 'through' *ära* 'away' and by kvantors like *kõik* 'all' and *kogu* 'whole'. As the system is quite complex, it is hard to predict to what extent these changes will take place and what the final outcome might be. But as a result, I believe, iconicity of the system will increase. Besides the subsystem of the object, some changes would be likely in other syntactic subsystems, too. (See for example Erelt and Metslang 1998.)

## Conclusion

The L2 learners' impact on the structure of Estonian discussed in this paper is as yet hypothetical, but probable if Russian-Estonian bilingualism became a reality. Although I consider this possible impact positive for Estonian in terms of its fitness, I do not suggest that Estonian should be deliberately modified to become more fit. I believe that language is a self-organising system that adjusts itself to the demands of the environment. Thus, if changes like those described herein are going to take place in the future, it is the language's response to the demands of the environment to become more easily learnable and to accommodate the large number of new speakers willing to use it. If these changes are not going to happen, the most likely reason is that there is no demand for Estonian to be used as an intercultural tool of communication. As I have argued elsewhere (Ehala 1998), in the long run this may have damaging consequences for the Estonian speech community.

Whatever will happen, I think that it would be wise to design some introductory Estonian textbooks bearing in mind the U-shaped learning hypothesis and to present a simplified account of Estonian grammar comprising only the productive or frequent patterns, to help the learner achieve communicative ability more easily. At this stage, those who wish to have a fuller command of the language can start to carve out a more detailed version of Estonian by using it in everyday interaction.

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