Abstract

This study analyzes several patterns of Russian-Estonian code-switching (here and afterwards CS) at the syntactic level. Structural convergence is often observed between two languages in contact. Attempting to locate the consequences of contact-induced changes in Russian and Estonian, the current paper focuses on the grammatical aspects of CS and tests several well-known constraints on the bilingual data. Investigating “universally-claimed” constraints in the light of the Russian-Estonian data, it will be shown that some are violated

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1This paper is part of the work conducted on a Russian-Estonian code-switching corpus. This research was supported by Estonian Science Foundation grant no 6151 “Child language, interlanguage and code-switching corpora creation and description”. I am very grateful to the anonymous reviewer for very helpful and lengthy comments.
totally and others partly. In addition to this, the integration of L2 items in Russian-Estonian code-switched sentences is described.

Contributing to the research on contact-induced language change, the present study takes a closer look at grammatical features of Russian-Estonian CS and on the convergence of local Russian towards Estonian.

**Key words:** code-switching, constraints, contact-induced language change, convergence, language contact, matrix language, Estonian, Russian

### Introduction

One of the main claims in Sarah Thomason and Terence Kaufman’s (1988) theory of contact-induced language change is the following: The more intensive the contacts between two languages are, the greater the possibility of contact-induced language changes. The bulk of work on contact-induced change describes the actual changes that result from numerous factors (see the special issue of *Bilingualism: Language and Cognition* 2004: 7 (2) – where authors focus solely on the process itself and describe how convergence leads to change). Other researchers investigate a number of constraints that allegedly restrict changes on the syntactic, phonological or morphological levels.

The goal of this paper is to describe and explain some morphological and structural features of Russian-Estonian CS. The research is based on the Russian-Estonian CS corpus currently under construction at Tallinn University (see Zabrodska 2007). First, this paper summarizes a number of empirical studies on convergence from around the world, attempting to define con-
vergence and its connection to CS. The study then investigates the morphological integration of the Estonian items within CS phrases, focusing in particular on the matrix language (here and afterwards ML) distinction and free morpheme constraint. Analyzing intrasentential Russian-Estonian CS on the structural level, it provides a critical overview of the equivalence and government constraints. These issues are considered to be related to the convergence between two languages.

1. Interdependency between CS and convergence

The definition of CS as the alternate use of two or more languages in the same utterance or conversation (Grosjean 1982: 145) is broad enough to include any kind of language alternation. Carol Myers-Scotton (2006: 234) defines bilingual speech as any clause that includes elements from two or more languages. According to her, the elements that make a clause bilingual may be actual surface-level words from two languages as well as abstract rules, not just actual words. If the use of lexical items from another language is called CS, the non-monolingual rules and structures are labeled with the term convergence. As we will conclude, the studies on convergence depend on the researchers’ background and scientific interests.

For Michael Clyne (2003: 79) convergence is a general term to denote languages becoming more similar to each other. Myers-Scotton’s and Janice Jake’s (2000) notion of convergence overlaps with Clyne’s (2003) semantico-syntactic transference, which entails using lexical items and grammatical morphemes from one language and combinability rules and meaning from the other. Howard Giles and Philip Smith (1979) describe con-
vergence as a strategy by which interlocutors accommodate each other’s speech in a variety of ways: by adjusting pronunciation and other linguistic features, or even paralinguistic features such as speech rate, pauses, and length of utterances.2

Ad Backus (2005) employs the term convergence to define the process associated with the processual language change mechanism (equally with CS, reanalysis, grammaticalization, attrition). He discusses the question of how convergence relates to the causes and mechanisms of change, and to the various types of change (Backus 2004: 179). Sub-dividing the complex process of contact-induced change he proposes the following scheme:

Table 1. Dimensions of change

<table>
<thead>
<tr>
<th>Leading question</th>
<th>Domain of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate causes</td>
<td>Social factors (dominance, prestige, differential, intensity etc.)</td>
</tr>
<tr>
<td>Proximal causes</td>
<td>Causal mechanisms (conversational reflexes of the social factors, including CS)</td>
</tr>
<tr>
<td>Mechanisms</td>
<td>Processual mechanisms (including convergence, reanalysis, grammaticalization, and attrition) &gt;&gt; shifts in entrenchment</td>
</tr>
<tr>
<td>Targets of change</td>
<td>Filter: Attractiveness (borrowability, differential statuses of morphemes and categories, core syntax versus pragmatics)</td>
</tr>
<tr>
<td>Changes</td>
<td>Effects/Results (types of change): addition, loss, replacement, (e.g.: loanwords, loan translations, structural change/borrowing, indirect contact-induced changes)</td>
</tr>
</tbody>
</table>

Sometimes, CS may be so dense that the boundaries between languages become blurred. Structural convergence often occurs where languages are spoken in close geographical proximity and the degree of multilingualism is high, like in the Balkan

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2 This so called Communication Accommodation Theory is similar with Sarah Thomason’s (1997) notion of negotiation (accommodation) strategy.
Sprachbund, or the village of Kupwar in India, or Northwest New Britain. Providing a brief taxonomy of contact situations and the types of cross-linguistic influence they involve, Donald Winford (2003: 23) distinguishes between borrowing and convergence situations.

### Table 2 Major outcomes of convergence situations

<table>
<thead>
<tr>
<th>Type of contact</th>
<th>Linguistic results</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous geographical location</td>
<td>Moderate structural diffusion</td>
<td>Sprachbünde, e.g., the Balkans</td>
</tr>
<tr>
<td>Intra-community multilingualism</td>
<td>Heavy structural diffusion</td>
<td>Marathi/Kannada influence on Kupwar Urdu</td>
</tr>
<tr>
<td>Intense pressure on a minority group</td>
<td>Heavy structural diffusion</td>
<td>Tibetan influence on Wutun; Turkish influence on Asia Minor Greek</td>
</tr>
<tr>
<td>Intense inter-community contact</td>
<td>Heavy lexical and/or structural diffusion</td>
<td>The languages of Northwest New Britain; the languages of Arnhem Land, Australia</td>
</tr>
</tbody>
</table>

As we can observe, Winford (2003) uses this term to describe the frequency of contact and his typology is rather narrow: He concentrates exclusively on the outcomes of convergence situations. The role of convergence in language contact is discussed also by Thomason and Kaufman (1988), Thomason (2001) and Myers-Scotton (2002).

Reviewing the general trends in research on the widely used term *convergence* in contact linguistics and concerning its meaning and overall range of application, I would draw the following distinction between the approaches taken by different researchers. In SLA and bilingualism research the tradition is to speak of transfer or interference in different types of bilingual speakers rather than of convergence. Barbara Bullock and Almeida Toribio (2004: 91) assume that the reason for this is the ‘emergent’ character of structural similarities between a
bilingual’s two grammars that appears ephemeral. They argue for a broader application of the term because synchronic processes may ultimately lead to convergence.

Toribio (2004) concludes that the simultaneous presence of languages in CS further favors the search for parallels between them and enhances convergence. It is often argued whether a unidirectional change that results in the increase of structural similarities may be called convergence. The problem is addressed in a systematic way by Bernd Heine and Tania Kuteva (2005: 11), Bullock and Chip Gerfen (2004) and Bullock and Toribio (2004) who point out that the term is understood in the literature in two different ways. For some scholars, convergence means a reciprocal increase in similarities (Silva-Corvalán 1994/2000; Thomason 2001), while others claim that convergence may be also understood as change affecting only one of the languages that often arises in the situation of asymmetrical bilingualism where one language has a higher status (Myers-Scotton 2002; Clyne 2003). Bullock and Toribio (2004: 91) conclude that the directionality of convergence is not so important after all. What is more important, in their view, is how convergence differs from other types of contact-induced language changes.

Pieter Muysken (2000: 122) believes that convergence leads to congruent lexicalization. Some examples from the Russian-Estonian CS corpus can substantiate this as well. Backus (2005: 26) states that convergence often builds on previously established equivalence between language structures. For Penelope Gardner-Chloros and Malcolm Edwards (2004: 2) CS is a major vehicle for convergence and language change. Similarities between languages are reached through CS, but it is not always the sole means of convergence.

Backus (2004) points out that language change is a diachronic phenomenon. The researcher should study the connec-
tion between individual speaker’s language use during conversation and language change. He calls this link the *processual mechanism*. According to Backus (2004: 179), if an idiolect contains two ways of expressing the same thing, a native word and a loanword, or a native construction and a foreign one, it stands to the reason that their degrees of entrenchment change with fluctuations in usage. He concludes that in cases of contact-induced structural change, L1 construction is in competition with the L2. The latter receives its degree of entrenchment from two sources: its use in L1 and L2 utterances. Not just the importation of L2 patterns into L1 speech affects language change but fluctuations in language choice, such as the encroachment of the L2 into domains previously reserved for the L1, also determine the differential use of these constructions. If such a processual mechanism is empirically confirmed (for some examples see the special issue of *Bilingualism: Language and Cognition* 2004, 7 (2)), CS occurs as a causal mechanism of language change.

Heine and Kuteva (2005: 11) touch upon the problems associated with convergence: If some researchers use it to mean the reciprocal influence of languages on one another (Thomason 2000 a: 89), whereby involved languages are moving towards a new creation (Romaine 1988: 79; Salmons 1990: 454), others consider it to be the unilateral influence of one language upon another (Myers-Scotton 2002: 172). To conclude, the term *convergence* means two languages becoming more and more alike and also structural changes in one language under the influence of another. To make matters even more complicated, the notion is used for both the process and the result of change.
1.2. Introducing a grammatical approach to CS

In the 1980s different researchers began analyzing bilingual speech and searching for grammatical constraints on CS. This is illustrated by Shana Poplack and Marjorie Meechan’s (1995: 199) research question: “Do speakers operate with a single base grammar which is on occasion overlaid with lexical items from other languages, or are different grammars activated at different times?” Going further, they ask: If the latter is the case, what structural principles govern the juxtaposition? The grammatical approach was mainly the focus where, within a sentence, a switch can or cannot occur. Thus, the grammatical approach dealt mostly with intrasentential switches (see an excellent overview by Helena Halmari 1997: 67–69). Several structural constraints have been claimed to take place in intrasentential switches.

Myers-Scotton (1993: 19) gives three major directions of constraints: 1) on switching from the surface (e.g. largely using linear ordering, form class, or size of switched material), 2) driven by the same principles or rules formulated under current syntactic theories to explain syntactic structures within a single language, and 3) on CS related to clashes in subcategorization restrictions between the languages involved.

In the 1990s, many CS studies endeavored to take into account more than one factor in explaining CS, that is, to combine sociolinguistic factors with grammatical (see Myers-Scotton (1997 a) for a discussion), psychological (Green 1986, 1998; Levelt, 1989; Grosjean, 1995, 1997, 2001) and conversational factors (Auer, 1998; Li Wei 2005 to name just some major contributions).

Within the last twenty years, the search for universally valid grammatical constraints on CS has remained popular among some researchers (Kamwangamalu 1997, 2000; Muysken
2000; Myers-Scotton 1993, 1997 a, 2006), but still no agreement has been reached. On the one hand, Anneli Sarhimaa (1999) and Muysken (2000) show how numerous approaches, models, and formulations of yet other grammatical and typological constraints on CS have failed to produce a universally valid account of CS phenomena. On the other, adherents of formal linguistic approaches continue to develop models of morphosyntactic constraints on CS, stating that the principles governing CS are the same everywhere (Myers-Scotton and Jake 2000; Myers-Scotton, Jake and Gross 2002).

Analyzing grammatical approaches to CS, Gardner-Chloros and Edwards (2004: 104) argue that research in this field has largely concentrated on finding universally applicable, predictive grammatical constraints on CS, so far without success. According to them this may be because of misapprehensions as to the way in which grammar is relevant to CS. Thomason (2000 b) stresses justifiably that one never knows what types of switches will be conventionalized and that they do not depend on any specific monolingual grammar. Gardner-Chloros and Edwards (2004: 107–110) also point out that different concepts can be presupposed by the term ‘grammar’ and that it is not clear whether and how common assumptions about (monolingual) grammars are applicable to non-monolingual speech.

Here, CS is taken as referring to those cases where Russian-speakers switch code within the same speech event. They can alternate within a single turn and use lexical elements from two languages within the same utterance. The former type is insertion and the latter is alternation in Muysken’s (2000) view.

Following Bullock’s and Toribio’s (2004: 91) approach, convergence is defined in this paper as “the enhancement of inherent structural similarities found between two linguistic systems”. This definition clearly relates convergence to the
causes and mechanisms of contact-induced language changes. The definition echoes the Functional Convergence Hypothesis, proposed by Liliana Sánchez (2004), stating that convergence occurs in peripheral and somewhat similar but not identical areas of morphosyntax.

2. Data

In the present study I will briefly examine the questions raised on the basis of the Russian-Estonian CS corpus that is currently under construction. This corpus consists of a wide range of speech and written text samples. Because it is structured on the basis of LIIDES (LIPPS Group: 2000), it makes possible a range of studies analyzing grammatical and pragmatic features of CS. The total size of the corpus (including original texts and comments) is over 200,000 words. For a detailed description of the corpus, including an explanation of the transcription and encoding, see Zabrodskaja (2007).

All the texts were collected in the course of the last seven years. The texts are divided into ten main groups:
1) 30 hours of recorded Russian-Estonian bilingual TV programs (researcher Anna Verschik);
2) Language use in bilingual or Russian-language commercials, leaflets, written public information in Tallinn and Ida-Virumaa (researchers Verschik and Zabrodskaja),
3) Observation of bilingual conversations in shops, markets etc in Tallinn, Kohtla-Järve and Narva (researchers Verschik and Zabrodskaja).
4) Recorded interviews with 75 Russian-speaking students of Tallinn University (10 young men and 65 young women), their self-reported language use, an analysis of their written homework and their spontaneous everyday language prac-
tices. The total number of recorded hours of conversations is 45 (researcher Zabrodskaja).

5) The analysis of 600 frequently code-switched written homework assignments (approximately 2000 handwritten pages) of 40 Russian-speaking first-year Tallinn University students studying in the Estonian language. The informants are not homogenous, as far as their knowledge of Estonian is concerned, but they all have graduated from schools with Russian as the language of instruction (researcher Zabrodskaja).

6) The data collected in an academically-oriented Tallinn secondary school by Tatjana Baškirova (2006). The data have been collected between 2003 and 2005. The author of the study was working in a Russian-medium school, collecting the samples from CS in classroom interaction.

7) Two sets of data, the first one collected by Indrek Konnapere (2006) as an example of bilingual language use during tour of duty at the Ämari Airbase from February to May 2002. The second set was collected by him in March 2006.

8) 130 instances of CS and various types of borrowings within local Russians’ everyday speech that were collected by Jekaterina Ozernova (2005) from several sources. These include public places (e.g. public transport, stores, markets etc) in Tallinn and Ida-Virumaa, the speech of Russian-

3 Interviews were mostly individual and were held in Russian and Estonian. Proficiency in Estonian differs among the informants: four come from bilingual families, 71 have acquired Estonian at school. However, all of them have graduated from schools with Russian as the primary language of instruction. The informants have equal proficiency in their native language. All of them have the Russian language as their mother tongue and single home language. They are receiving their education in the Estonian language. Their proficiency in Estonian is different but all can use Estonian as their L2 in both official and unofficial situations, in oral and in written communication. No matter how proficient Russian students are in Estonian, their everyday linguistic behaviour makes their Russian more similar to Estonian.
speaking students of Tallinn University, and broadcasts of numerous Russian radio stations in Estonia.

9) The data from the Estonian-language summer camp of the Kohtla-Järve Third Secondary School and summer camps of the Kohtla-Järve Pärna School (Zabrodskaja 2005). The observations made from this period are not the result of intensive or complete analysis of the behaviour. They are the product of many hours of observing the children during their interactions outside the classroom setting. The sociolinguistic profile of the informants, 77 Russian-speaking primary school pupils, can be described as follows: The ages of the children are seven-years-old, eight-years-old, nine-years-old and ten-years-old (the ages are specified before each example). They all come from Russian-speaking families and live in the Russian-speaking Järve area of Kohtla-Järve.4

10) The data obtained from the speech of Russian- and Estonian-speaking teachers in a Russian school of Kohtla-Järve (Zabrodskaja 2006 a). The informal conversational data, including the data in the questionnaire, was collected from 2003–2007. The interviews were held in both languages.

Although the knowledge of the Estonian language varies among the informants and the data in the corpus come from two sociodemographically different areas – Tallinn and Ida-Virumaa – this study is not comparative. It intends to show only general tendencies in Russian-Estonian CS.

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4 The basic language of communication among Kohtla-Järve residents is Russian, in which Estonians are also fluent. The traditional method of Estonian language teaching is prevailing in these schools. Children attend Russian schools where all the subjects are taught in Russian, Estonian is taught as a foreign language five times per week. Estonian as a school subject is taught from the first grade; in the kindergarten children learn the basics of the language. Based on this, it can be suggested that all informants have a more or less equal proficiency in Estonian.
Speaking of acquisition order and the dominance, Russian is the L1 for all informants but it is not necessary the ML in a CS utterance. That is why the terms L1 (Russian) and L2 (Estonian) are used in the following discussions.

3. Morphological integration of Estonian items in Russian-Estonian CS

3.1. Establishing the ML

*Heal lapsel mitu nime*
‘A loved child has many names’
An Estonian proverb

By examining which language is spoken with the greatest frequency and by looking at the determiners, the verbs, and the word order (Grosjean 1982: 320), CS researchers try to identify the recipient, target, host, matrix, base, borrowing language and the other as source, guest, and embedded (here and afterwards EL) language.

The structural analysis of CS brings about the necessity to decide whether or not there is a base language which, while adopting items from another language, still sets the frame of a sentence. Arguments have been made for and against its existence. Muysken (1995: 182; 2000: 69) points out that even if the answer is yes, defining the base language is not an easy task. According to him, the answer also depends on whether we take a discourse, psycholinguistic-, and / or grammatical- or statistics-oriented point of view.

The researchers who choose the conversational-analytic approach to CS would denote the original language of conversation the base language (Auer 2000). Some researchers distinguish between the language of individual sentences and the language
of the whole interaction: Jacomine Nortier (1990: 158) calls them the base language and the ML respectively, and Melissa Moyer (1998) labels them, respectively, the main language and the base language. Therefore, it is clear that determining the base language in many existing models depends on the choice of a unit of analysis (Gardner-Chloros and Edwards 2004: 120).

Psycholinguists would link the base language to the language in which the speaker is most proficient. But this is also problematic, because proficiency is not always clearly definable (Bürki-Cohen, Grosjean and Miller 1989; Grosjean and Miller 1994; Gardner-Chloros and Edwards 2004: 119).

A statistician would refer to the frequency of words or morphemes and a grammarian seeks the elements which ‘guide’ the sentence (grammatical morphemes, governing verbs etc). Still, there are more and less prototypical cases. It is not always clear how utterances can be segmented: Gardner-Chloros and Edwards (2004: 107-108) demonstrate that dividing utterances into constituents may pose a problem. In their example, a German-Italian utterance can be segmented in three different ways. They also point out that different concepts can be represented by the term ‘grammar’ and that it is not clear whether or how common assumptions about (monolingual) grammars are applicable to non-monolingual speech (Gardner-Chloros and Edwards, 2004: 107–110).

The base language is also known as the ML and the other language included in the interaction is the EL (Joshi 1985, Myers-Scotton 1992 a, 1997 a, 1997 b, 1998; Myers-Scotton and Jake 2001). Thus, Myers-Scotton (1997 a: 3) defines CS as the selection by bilinguals or multilinguals of forms from an embedded variety (or varieties) in utterances of a matrix variety during the same conversation. She states that the ML is the main language in a CS utterance. According to her, the term
EL refers to the other languages which are also participating in CS, but with a lesser role.

These languages are also called the ‘guest’ and the ‘host’ language or the ‘recipient’ and the ‘donor’ language (Sridhar and Sridhar 1980; see Johanson⁵ (1993) for criticism of these terms). Timo Lauttamus (1991: 40) doubts the existence of base language. Taking the Puerto Rican community (Poplack 1980) as an example, he emphasizes the difficulty of assigning every utterance of a bilingual to a base language because borrowing and CS is extremely frequent. In his opinion, it is preferable to use the two most neutral terms, recipient and source.

The problem of terminology is closely related to the problem of the adequacy of the metaphors on which the terms are based. Lars Johanson (1993: 210-211) states that all proposed constraints on contact-induced language changes are mere tendencies and cannot be taken as a universally valid rule. Several years later he noticed that in some works on contact linguistics, contact-induced morphosyntactic frame-changing has been excluded as a theoretical possibility (Johanson 2002: 8). In the same spirit, Heine and Kuteva (2005: 79, 108) argue that any feature can be subject to contact-induced grammaticalization and even a minor use pattern potentially can be replicated.

However, the absence of universal constraints does not mean that contact-induced language changes are chaotic. Backus (2004: 180) explains that the changes are more clearly system-preserving and target the interfaces between syntax and other aspects of language, most notably pragmatics and lexicon. According to him, this is a problem of differentiation between

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⁵ Johanson’s (1993) code-copying framework remains beyond of the scope of this study. Verschik (2006 a) has introduced it into Estonian linguistics. She has also applied the framework to Russian-Estonian contacts (Verschik 2007).
system-altering (changes in the inventory of categories and grammatical morphemes) vs. system-preserving changes (changes in the distribution). If a previously non-existent grammatical meaning is used and expressed with the grammatical resources of the basic code, one may classify it both as an addition (new feature) and as a restructuring (i.e. the new grammatical meaning is attributed to an old pattern of the L1). The difficulty lies in the definition of what a ‘category’ is.

The existence of a base language is denied especially in the Zairian-Belgium context (Meeuwis and Blommaert 1994) or in the case of Votic-Russian CS (Turunen 1997: 215). Finding a clear ML can also be difficult in cases where the two languages are closely related (Clyne 1987: 760; Clyne 2003). The fact that there are clear cases of a ML as well as cases where none can be indicated with certainty, raises the question of whether it is possible to create a general theory of CS at all or whether we first need to define the contact situation and then characterize the switching in this frame.

Studies on CS and bilingual speech are often concerned with the code-assignment. In both phenomena the determination of the ML has the same problems. It appears that there is no agreement upon a definition or the assignment criteria. In the Matrix Language Frame model, the ML is claimed to provide the morphosyntactic frame of the utterance (Myers-Scotton 1993). In earlier versions of the model, the main criterion was the number of morphemes: the language that provides more morphemes is the ML. However, according to some researchers (Alvarez-Cáccamo 1998; Meeuwis and Blommaert 1998), in complex cases of dense and conventionalized CS, switches cannot be equated to monolingual varieties, one of the reasons being that speakers often perceive their way of speaking as a single code.
3.2. The MLF model: pros and cons

Myers-Scotton (1992, 1997 a, 1997 b) proposes the Matrix Language Frame (MLF) model for describing intrasentential CS. The terminology and ideas partly originate from Aravind Joshi’s (1985) article, but Myers-Scotton brought them to recognition in the field of CS. The model is based on the distinction of the matrix and the EL on the one hand, and on the distinction of the system and content morphemes on the other. Describing constituents, the model operates with the maximal projections within the X-bar theory (first discussed by Jakendoff 1977; Chomsky 1986).

The grammatical frame of the MLF model is defined in terms of morpheme order and the system morphemes (The System Morpheme Principle). The system morpheme/content morpheme distinction is based on the earlier work of Joshi (1985), who operates with closed class and open class items. Most function words are system morphemes and they have features (- thematic roles receiver/assigner) and often (+ quantification). Most nouns, adjectives (+ thematic role receiver) and most verbs and some prepositions (+ thematic role assigner) are content morphemes. Myers-Scotton (1997 a: 77-78) distinguishes between three types of constituents:

<table>
<thead>
<tr>
<th></th>
<th>(= ML) islands:</th>
<th>all morphemes come from ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ML</td>
<td>(= EL) islands:</td>
<td>all morphemes come from EL</td>
</tr>
<tr>
<td>b. EL</td>
<td>(= ML + EL) mixed constituents:</td>
<td>the system morphemes come from ML, the content morphemes only from EL or from both EL and ML.</td>
</tr>
</tbody>
</table>

These three types can be illustrated with Excerpt 1 (Hereafter, the Estonian part of the transcription is marked as @2 and the Russian part as @1. The Designation @1@2 means that the item does not belong to any monolingual grammar. The Estonian noun can be phonetically integrated or pronounced in-between).
### Excerpt 1

<table>
<thead>
<tr>
<th>Excerpt</th>
<th>Estonian</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) <em>R</em></td>
<td>Čto vy segodnja škole delali ?</td>
<td>what you today in school did</td>
</tr>
<tr>
<td>%glo:</td>
<td>what you today in school did</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>what did you do in school today</td>
<td></td>
</tr>
<tr>
<td>(ii) <em>G</em></td>
<td>Otkrytku dlja isy</td>
<td>a card for my father</td>
</tr>
<tr>
<td>%glo:</td>
<td>card for father</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>a card for my father</td>
<td></td>
</tr>
<tr>
<td>(iii) <em>R</em></td>
<td>Čto ?</td>
<td>what</td>
</tr>
<tr>
<td>%glo:</td>
<td>what</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>what</td>
<td></td>
</tr>
<tr>
<td>(iv) <em>G</em></td>
<td>Nu otkrytku dlja pap-y .</td>
<td>Well, a card for my father</td>
</tr>
<tr>
<td>%glo:</td>
<td>What card for father</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>Well, a card for my father</td>
<td></td>
</tr>
<tr>
<td>(v) <em>G</em></td>
<td>Ty čto ne znaeš , čto v voskresen’e</td>
<td>Don’t you know that it’s Father’s Day on Sunday</td>
</tr>
<tr>
<td>%glo:</td>
<td>You what not know , that in Sunday</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>Don’t you know that it’s Father’s Day on Sunday</td>
<td></td>
</tr>
<tr>
<td>(vi) <em>R</em></td>
<td>Isadepäev</td>
<td>Father’s Day</td>
</tr>
<tr>
<td>%glo:</td>
<td>Father-Gen PL-day</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>Father’s Day</td>
<td></td>
</tr>
<tr>
<td>(vii) <em>G</em></td>
<td>Isa päev</td>
<td>Father’s Day</td>
</tr>
<tr>
<td>%glo:</td>
<td>Father: Gen-day</td>
<td></td>
</tr>
<tr>
<td>%tra:</td>
<td>Father’s Day</td>
<td></td>
</tr>
<tr>
<td>%com:</td>
<td>CF. Standard Estonian isa-de-päev (father-Gen PL-day)</td>
<td></td>
</tr>
</tbody>
</table>
The discussion begins in Russian, in which elements of Estonian are inserted. In Excerpt 1, every sentence is placed on a different line. Sentences (i), (iii), (iv) can be seen as ML islands: all morphemes come from the ML, Russian. Sentences (vi), (vii) are EL islands: all morphemes come from the EL, Estonian. Sentences (ii), (v) contain clear ML + EL mixed constituents. In addition to the System Morpheme Principle, the Morpheme Order Principle also applies to mixed constituents. According to the Morpheme Order Principle, the morpheme order follows the order of the ML + EL constituents. The resemblance of the Morpheme Order Principle and Poplack’s Equivalent Constraint is clear.

Russian word order dominates in the phrases: otkrytku dlja is-y ‘postcard for father’ and Ty čto ne znaeš’, čto v voskresen’e is-in pjaèv? ‘Don’t you know that it’s Father’s Day on Sunday?’.

The Estonian word isa is interpreted as a Russian noun of the first declension class, the root vowel -a is treated as Russian nominative ending. The adjective is constructed from the noun form: is-in ‘father’s’, cf monolingual Russian pap-in ‘father’s’. In Estonian the genitive singular should be: isa ‘father’s’. Conventionally, genitive plural (isa-de) is used in the expression ‘father’s day’. Code-switched dlja is-y ‘for father’ and is-in ‘father’s’ follow Russian monolingual grammar rules (see Excerpt 1 a).

Excerpt 1 a

<table>
<thead>
<tr>
<th>Estonian:</th>
<th>Russian:</th>
<th>CS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>isa jaoks (= isa-le)</td>
<td>dlja pap-y</td>
<td>dlja is-y</td>
</tr>
<tr>
<td>isade-päev</td>
<td>pap-in den’</td>
<td>‘for father’</td>
</tr>
<tr>
<td>‘father’s day’</td>
<td>is-in pjaèv</td>
<td>‘father’s day’</td>
</tr>
</tbody>
</table>

In general, Excerpt 1 is in accordance with the MLF model. However, as we will see in Excerpt 9, there are sometimes difficulties with the notion of the ML: In some cases it is not possible to unambiguously decide what the basic language is.
In earlier versions of the model the main criterion was the number of morphemes: the language that provides more morphemes is the ML. Sometimes the determination of the ML is impossible according to this criterion (some examples can be seen in Sarhimaa 1999). This view supports Russian-Estonian data (see Excerpt 9).

In spite of it all, there is no clear agreement on the criteria for identifying the ML in CS utterances. While Edit Doron (1983) and Joshi (1985) define it as the language of the first word in sentence, for Judith Klavans (1983) and Jeanine Treffers-Daller (1991), it is the language of the verb or inflectional phrase. In Excerpt 2 it is illustrated that the first word does not determine the ML.

Excerpt 2

S: za@1maks@2aj@1 , požaluista@1 , i@1 za@1 menja@1 , ja@1 zavtra@1 tebe@1 den’gi@1 venu@1 .
%glo: Pay please and for me I tomorrow you money return
%tra: Pay for me too Please , I will return You money tomorrow
%com: za-maks-aj
PREF-pay-SUF.IMP2SG

The first word is code-switched but it does not lead to the use of Estonian in the rest of the sentence. This is a clear example of insertion, because only the stem maks- is Estonian. The ML in the conversation was Russian because other morphemes, combinability rules and word order are Russian.

In Excerpt 3, the two first words are in Estonian, while the rest of the sentence is in Russian. As the conversation was held mainly in Russian, this example demonstrates an alternation in Muysken’s (2000) terminology.
Russian-Estonian data shows that the sentence can begin and end in Estonian, but even the combination of a noun and a verb at the outset of the sentence does not signify the ML (see Excerpt 4).

Excerpt 4

*S: Järeleksam@2 v@1 sledujuščij@1 četverg@1 budet@1 , Kat’ka@1 skazala@1 čto@1 ej@1 tože@1 sobib@2 .
%glo: Additional exam in next Thursday will be , Kat’ka said that for her also suits
%tra: The additional exam will be on next Thursday , Kat'ka said it suits her too

The ML of conversation is Russian. The use of the Estonian noun järeleksam ‘additional exam’ may be conditioned pragmatically and semantically. Russian-speaking students employ in their casual monolingual speech Estonian nouns belonging to the university domain. The motives for such insertion are to express items, whose appropriate Russian equivalents are unknown to them (like järeleksam ‘additional exam’, ainepunkt ‘credit point’, matrikkel ‘student’s record-book’).

Gardner-Chloros and Edwards (2004: 118) argue that the division of morphemes into content vs. system morphemes is not without problems. There are difficulties with the notion of the basic (‘matrix’) language as well. As we shall see in Excerpt 5, it is not possible to unambiguously decide what the basic language is.
Generally it is believed that frequent CS can only occur in cases of very good language command. Excerpt 5 demonstrates that even speakers with limited Estonian knowledge can code switch during the sentence several times.

Here, we have Russian grammatical morphemes and a verb. The code-switched subject *keeleteadus* ‘linguistics Nom SG’ is an Estonian item in the nominative; its syntactical position requires no morphological integration. The code-switched noun *ainepunkt-ov* ‘credit-point-Gen PL’ is an Estonian noun in the nominative *ainepunkt* ‘credit-point’ with the Russian plural genitive ending *-ov* (the Estonian-language item *aine-punkt* can be interpreted in the terms of Russian morphology as a masculine noun with zero ending, second declension class, because *punkt* is a common internationalism in the two languages). Semantically, however, the sentence is not intelligible either to monolingual Russian or to monolingual Estonian speakers. Some researchers suggested that the ML is determined by the language of the main verb (Klavans 1985; Treffers-Daller and van den Hauwe 1990). However, Excerpt 5 shows that it is not always the case. On the one hand, if the main verb is Russian, the ML is Russian, but this sentence is not intelligible to monolingual Russian-speakers. On the other hand, the morphology and word order is Russian. On what ground should we then define the ML?

The assumption of unidirectionality in CS is contested by Abdelâi Bentahila and Eirlys Davies (1998) and Rodolfo Jacobson (2001) who demonstrate that the equality of two varieties is
possible in proficient bilinguals. Woolford (1983) claims also that bidirectionality is possible in switching. Bentahila and Davis (1998: 31) show that, based on the number of morphemes, some conversations tend to change the ML several times. This can be demonstrated by the Russian-Estonian data as well; where every two adjacent sentences have a different ML (if we accept that the ML is defined by the number of morphemes).

According to Myers-Scotton (1997 a), in a conversation with dense CS, the ML can be recognized by frequency parameters: Roughly, the ML is the language from which more grammatical morphemes arise. However, Myers-Scotton (1997 a: 68) adds: “How large is large enough is an unresolved issue.” Anyway, Russian-Estonian data suggest that in the case of frequent CS – alternation or frequent insertional CS – the determination of the ML is much more difficult than in the case of occasional insertions (see Zabrodskaja 2006 b: 136–138).

Muysken (2000) argues that the following factors determine the ML: (a) the language of conversation (the question remains of how we go about determining the language in question); (b) left-to-right parsing, which says that the first word or set of words in the sentence determines the base language; (c) morpheme-counting, i.e. the language with more morphemes in the discourse is the ML. Other possibilities listed include defining the ML from a psycholinguistic or a structural perspective; with the former referring to the most activated language for the speaker, and the latter to the language of inflection. Like Poplack (1980), Muysken rejects a purely structural definition of the ML because it leads to circularity. It is circular to identify a language as a ML and then invoke it to explain the origin of system morphemes such as verbal inflections.

Muysken (2000) concludes the discussion on the ML with a rather ambiguous note: “a generally valid criterion for defining
the ML ... is hard to find, but researchers have no trouble identifying it ... There is much evidence that code-mixing is asymmetrical and involves a dominant, base or ML.”

Kamwangamalu (2000) explains that studies that attempt to define the ML in code-mixing do not take into account the sociolinguistic context in which code-mixing takes place. He proposes that in code-mixing in a diglossic context (e.g. multilingual communities in Africa), the language identified as ‘Low’ (e.g., an African language) tends to be the ML, and the one identified as ‘High’ (e.g., English, French or Portuguese) the EL. It seems that diglossia is a useful theoretical construct in attempts to define the ML: the distinction between High language and Low language parallels the distinction between the ML and the EL. In code-mixing involving English, French or Portuguese with an African language the latter is usually the ML, and the former the EL (for details, see Kamwangamalu 2000: 200-204).

But this division does not always help the researchers, because there is no clearly determined diglossia. In different situations the ML can be different. The bilingual situation can be as follows: an interlocutor with a Russian background speaks with a dominant speaker of Estonian in the latter’s mother tongue (Estonian). During the interaction a Russian expression can appear more attainable or adequate, and Russian-Estonian CS occurs. But the ML of conversation is Estonian; despite the fact that Russian is his/her L1. Referring to the dominant language some researchers mean language proficiency, others bear sociolinguistic factors in mind. Since diglossic situations are not characteristic of all societies, this can not be a universal criterion (Bani-Shoraka 2005).

Myers-Scotton and Jake (2001) later modified the MLF model. In the new modification, there are two models which are bound
tightly together: the 4-M model and the Abstract Level model. The notion of 4M refers to the morphemes earlier defined as content and system morphemes. In the new model, there are four types of morphemes: one type of content morphemes and three types of system morphemes (one of them ‘early’ and two of them ‘late’ system morphemes). With regards to ‘Early’ system morphemes, for example, the plural, can act similarly to content morphemes.

The Abstract Level model contains three sublevels of abstract lexical structure: the levels of lexical-conceptual structure, predicate-argument structure and morphological realization patterns. The levels of the Abstract Level model are responsible, for example, for sufficient congruence in the sentence. In bilingual speech, if this sufficient congruence is missing between the ML and EL, an EL island or bare forms will be produced. This compromise strategy is realized through the notion of composite ML where the morphosyntactic frame originates from several sources (Zabrodskaja 2005: 75, example 31). However, evidence from Russian-Estonian CS shows that even in the case of sufficient congruence EL stems may appear without any markers (Zabrodskaja 2005: 84).

Myers-Scotton’s MLF model does not act on the sentence level but on the complement phrase level (maximal projection). The model does not describe, for example, where EL islands are likely to appear. The model has also been criticized because it presupposes the selection of a base language.

However, Myers-Scotton (1997 a: 70) points out that the ML is a dynamic phenomenon: it can change either synchronically or diachronically. Synchronically it can change within the same conversation according to different socio-psychological and discourse factors. Diachronically, the change of the ML means language shift which is regarded by Myers-Scotton (1997 a: 70) to be a consequence of socio-political factors.
For the possible changing of the ML, Myers-Scotton has developed the *Matrix Language Turnover Hypothesis*. Myers-Scotton and Jake (2001) provide several examples of language change induced by CS. The change of dominance and, subsequently, of the ML is termed as ML turnover (Myers-Scotton 1998).

It is not entirely clear whether and how MLF and 4M models can be applicable in the cases where function markers are not added agglutinatively. For example, Estonian has a great deal of suprasegmental morphology (where the quantity distinguishes forms *laine* ‘wave’ (2nd): *‘laine* (3rd) ‘wave GEN’). We cannot, therefore, speak about early or late morphemes. Suprasegmental morphology is realized together with the whole item. This assumption has to be discussed and analyzed in the future in more detail.

### 3.3. Relating pragmatic particles and the ML

The use of Estonian pragmatic particles is very common in local Russian (see Excerpt 6). They do not determine the subsequent use of Estonian in a sentence.

<table>
<thead>
<tr>
<th><em>SC:</em></th>
<th>Tere@2</th>
<th>Ja@1</th>
<th>mogu@1</th>
<th>vam@1</th>
<th>kak-nibud’@1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pomoč’@1</td>
<td>?</td>
<td>I</td>
<td>can</td>
<td>you</td>
<td>somehow</td>
</tr>
<tr>
<td>Glo: Hello</td>
<td>!</td>
<td>help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tra: Hello</td>
<td>!</td>
<td>Can</td>
<td>I</td>
<td>help</td>
<td>you</td>
</tr>
</tbody>
</table>

Pragmatic particles are an important component of expressive lexicon. Estonian pragmatic particles in Russian speech are used to express politeness, solidarity, emotions, irony etc. Table 3 represents the most common pragmatic markers in the data.
Table 3 Estonian pragmatic particles common in Russian speech

<table>
<thead>
<tr>
<th>Types of pragmatic marker</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>interjections</td>
<td><em>ah soo</em> ‘oh, I see’, onju ‘of course; you see, you know’, Issand Jumal ‘my god’, <em>hüva(i)</em> ‘bye’, <em>olgu</em> ‘ok; bye’, <em>tere-tere</em> ‘hello-hello’ (with different variations), <em>musi-kalli</em> ‘kiss-hug, bye’ (with different variations), <em>oot-oot</em> ‘wait a minute’</td>
</tr>
<tr>
<td>response particles</td>
<td><em>aitäh</em> ‘thank you’, <em>selge</em> ‘it is clear’, <em>selge pilt</em> ‘it is obvious, evident’, <em>kindel see</em> ‘it is certain’</td>
</tr>
<tr>
<td>sentence fillers</td>
<td><em>muidugi</em> ‘of course’, <em>eelkõige</em> ‘first of all’, <em>natukene</em> ‘a little’, <em>täpselt</em> ‘exactly’</td>
</tr>
<tr>
<td>clausal switches</td>
<td><em>tähendab</em> ‘it means’, <em>klapib</em> ‘it fits’</td>
</tr>
</tbody>
</table>

Russian-Estonian CS data illustrate that the position of a pragmatic marker in the sentence is not important; its use does not determine the ML. It is interesting to note that in other language pairs we find a similar situation. For example, Gardner-Chloros (1991: 169) has similar examples in her French-Alsatian corpus where discourse markers and conjunctions were frequently the only code-switched element in the sentence.

The use of pragmatic particles in Russian-Estonian CS is not comparable with the situation in Tatarstan, where the Tatar discourse markers inserted to Russian speech change the word order (Wertheim 2003). Here, switched pragmatic particles can signal the bilingual character of the otherwise monolingual conversation. They are very characteristic of the spoken Russian language in Tatarstan.

3.4. Constraints on switching of morphemes

Poplack (1980) and Poplack *et al* (1990) have developed the *free morpheme constraint* in connection with Spanish-English CS but claimed her constraints to be universal. According to the free morpheme constraint, usually only the free and not the bound
morphemes can be switched. If a switch occurs between free and a bound morpheme, their phonological integration is demanded. As Poplack (1980: 585) states, “codes may be switched after any constituent provided that constituent is not a bound morpheme”. The position of Poplack is that there is no CS involving single morphemes. Let us take under consideration Excerpt 7.

Excerpt 7

*S: Segodnja@1 čto-to@1 külm@2ovato@1.
%glo: Today somehow cold-somewhat
%tra: Today is somewhat cold
%com: Külm-ovato (cold-somewhat) ‘somewhat cold’

Code-switched külm-ovato consists of Estonian adjective külm ‘cold’ and Russian suffix -ovato that shows incompleteness. The student intends to say that it is slightly cold but not very cold.

There are a lot of such examples in the corpus. They show that a switch between a stem and a derivational affix is possible. A stem can be Estonian and a prefix and a suffix Russian (see Excerpt 2 on za-maks-aj ‘PREF-pay-SUF.IMP2SG’). A stem can be Estonian and take on a Russian suffix (like külm-ovato ‘cold-somewhat’). Thus, the switch between stems and grammatical markers are possible in Russian-Estonian bilingual data. This fact violates completely the notion of free morpheme constraint introduced by Poplack (1980) and Poplack et al (1990).

3.5. Double marking

Discussing two possible exceptions to the system morpheme principle, Myers-Scotton (1997 a: 110) mentions cases involving
the “double morphology” phenomenon, in which a switched item is marked simultaneously by an EL and an ML system morpheme expressing the same meaning. In Peter Auer’s (1999) terminology this process is called “double marking” of certain grammatical functions by functionally equivalent but structurally divergent strategies. Excerpt 8 presents a clear example of double marking.

It is interesting to note that in line (vii) there occurs the double marking of place by semantically equivalent but structurally divergent strategies: the same spacial relation is marked both by the Russian preposition \(v\) ‘in’ and the Estonian inessive case marker -s (Excerpt 8 a).

This is the instance where a Russian prepositional phrase corresponds to an Estonian noun in the local internal case. In Russian, the preposition \(v\) ‘in’ carries the semantics of spatial relations, and the choice of an oblique case is secondary; that is, if the case marker is erroneously chosen or is lacking altogether, the intelligibility of the utterance is not affected (Excerpt 8 b). In Estonian, local cases belong to the group of so-called semantic cases whose meaning is not merely abstract, as in Excerpt 8 c. Thus, the same meaning of the internal local case is rendered by the function markers of both languages (Russian preposition and Estonian case-marker).

Excerpt 8 a code-switched
\(v\) kapi-s
in closet-Iness
‘in the closet’

Excerpt 8 b monolingual Russian
\(v\) škaf-u
in closet-Loc

Excerpt 8 c monolingual Estonian
kapi-s
closet-Iness
Boys want to play football but cannot find the ball and begin to look for it, while the teacher helps them.

(i) *B1: Gde@1 mjač@1 ? My@1 že@1 včera@1 igrali@1
   %glo: Where ball ? We just yesterday played
   %tra: Where is the ball ? We played only yesterday
(ii) *B2: Da@1 ne@1 znaju@1 jə@1.
   %glo: But not know-1SG I
   %tra: I do not know
(iii) *B1: Kuda@1 ty@1 ego@1 položil@1 ?
   %glo: Where you it put-2SG-PAST
   %tra: Where did you put it
(iv) *T1: Kas@2 see@2 vōib@2 kapı-s@2 olla@2 ?
   %glo: If it can closet-ness be
   %tra: Can it be in the closet
(v) *B1: Oj@1, našel@1 ! Aitāh@2 !
   %glo: Oh, found ! Thanks
   %tra: Oh, I have found it ! Thank you
(vi) *B3: Nu@1 ? Gde@1 on@1 byl@1 ?
   %glo: So ? Where it was
   %tra: So ? Where was it
   %act: enters the classroom
(vii) *B1: V@1 kapı-s@2 !
   %glo: In closet-ness
   %tra: In the closet
This example can be analyzed from a different point of view. It can be seen as a language negotiation sequence plus cohesive lexical insertion in line (vii). Such examples are treated by Philip Angermeyer (2002) who suggests that sentences cannot be interpreted in isolation. An utterance in a conversation makes sense only if it can be connected to the preceding utterances in a meaningful way. He describes this relationship as coherence (Angermeyer 2002: 364). The insertion v kapi-s ‘in the closet’ may reflect nothing more than a temporary gap in the lexicon. This can be interpreted as an indication of the speaker’s confidence that the interlocutor will find the use of the Estonian ending appropriate. In other words, the boy does not expect other participants to be surprised that such a phrase is used in this context.

Auer (1999) describes the evolution of bilingual speech as a movement along the continuum that starts with CS and via code-mixing arrives over a period of time to a conventionalized fused lect. In the model of bilingual speech evolution Auer (1999) proposes different stages of conventionalization (he calls it grammaticalization) of CS. When a pattern of CS is grammaticalized, it becomes obligatory and ordinary, and the contrast between new and old items fades away.

The example of double marking (v kapi-s) represents the third stage in Auer’s continuum between CS, code-mixing and fused lects. According to Auer (1999: 323–329) who also discusses examples of double marking as in Excerpt 8 a, this strategy is characteristic of a more advanced stage of proficiency in the two languages (the stage of ‘code-mixing’ as opposed to the earlier stage of ‘CS’ and the later stage of the ‘fused lects’, in his terminology). There is not any evidence either to prove or to disprove this claim. Note, however, that the strategy employed in Excerpt 8 occurs in the speech of a Russian-speaking child who is apparently not entirely fluent in Estonian.
4. Structural features of frequent CS

So far the discussion has focused on morphological integration of L2 items into the L1 matrix. Here, I will briefly discuss the word order of Russian-Estonian CS.

There have been many attempts to describe the linguistics of code-switched utterances and identify the linguistic principles and constraints that govern their production (Pfaff (1979) on Spanish-English CS; Berk-Seligson (1986) on Spanish-Hebrew CS; Leung (1988) and Chan (1998) on Cantonese-English CS). Other researchers have also worked on generating similar specific linguistic constraints on patterns of CS, wishing to contribute to their universality (Sankoff and Poplack 1981; Berk-Seligson 1986; Di Sciullo et al 1986). In such studies, constraints are often based on rules of two monolingual grammars whereby two languages may be code-switched in accordance with these rules.

However, the one-to-one comparison between two languages is criticized for its monolingual bias, which conceives of individuals as members of homogeneous, uniform, and bounded ethnolinguistic communities (Le Page and Tabouret-Keller 1985; Backus 1999; Pavlenko and Blackledge 2006: 4–7). A speech community is thought of as the assembly of people that live together and speak the same language. But people’s languages differ in pronunciation, grammatical constructions, use of lexical options, etc (Keller 1990). Thus, every speech community has a code matrix (Backus 1999: 14) – the set of codes its members use. In a monolingual community, all codes would be varieties (dialects or sociolects) of the same language. Here, the code matrix would be more complex because Russian-speakers in Estonia are becoming bilingual.

Estonia’s Russian language is not Russia’s Russian and sometimes grammatical constructions of the former can be perceived
by Russia’s monolingual speakers as unintelligible or strange (Verschik 2004 a). Some segments of the Russian speech community have departed from the standard language. The continuously changing sociolinguistic situation and growing knowledge of Estonian among Russian-speakers have to be taken into account. For a microsociolinguist, patterns of Russian-to-Estonian communication appear more subtle and diverse than just two monolingual varieties.

This is especially true of Tallinn, where people with a various degree of command in Estonian and in Russian interact on an everyday basis in institutions, over the counter, in universities, etc (Verschik 2002, 2004 b; Zabrodskaja 2006 b, 2006 c). Another question that a microsociolinguist might ask is exactly what kind of Russian (Estonian) the speakers use, for actually produced utterances may not be classifiable as belonging to the respective monolingual varieties or even to standard L2 varieties of Estonian (Verschik 2006 b).

Carol Pfaff (1979: 314) states that surface structures common to both languages are favoured for switches. The equivalence constraint introduced by Poplack (1980) and Poplack et al (1990) aims to predict where switches are likely to occur. If two languages have similar (that is, equivalent) syntactic structures, a switch can take place because the change of language does not violate the structure of either of the languages.

If Russian is known as a free word order language (Comrie et al 1996), SVO is the most frequent surface word order in Estonian main clauses and it is also the order of neutral declarative sentences (Ehala 2006). But Russian-Estonian CS data shows that differences in the word order do not restrict the switch (see Excerpt 9).
Excerpt 9

(i) *G_1: Ja vsjo taki ne ponimaju gde pisat teg, a gde nõrk ?

%glo: I all this not understand, where to write strong, but where weak degree

%tra: I still don’t understand where to write strong and where weak degree

(ii) *G_2: See že on legko !

%glo: this but is easy !

%tra: But this is easy !

%com: Estonian: See on ju lihtne
Russian: Èto že legko
CS: See že on legko
Code-switched utterances like line (ii) prove that the rules used to construct CS utterances may be drawn at times from one language and at times from the other. CS is dense: each second word is code-switched. The sentence was pronounced quickly as a usual monolingual sentence. As the speaker is a so-called proficient code-switcher, who possesses excellent command of both languages. Russian word order dominates the utterance. Following Klavans (1983) and Treffers-Daller and van den Hauwe (1990), Estonian would be the ML because the subject and predicate are Estonian. But if we count the number of morphemes, the ML would be Russian: Russian že, leg-, k-, -o (4 morphemes) and Estonian see on (2 morphemes). In recent formulations, the ML is said to provide the majority of system morphemes (Myers-Scotton and Jake 2001).

The division between system and content morphemes is, however, problematic. Firstly, as Muysken (2000) points out, there are at least four different criteria relevant to this kind of classification in different languages; also, the distinction does not operate in the same way across languages. Jake (1998: 354) emphasizes that “there is variation across languages in the assignment of particular lexical “concepts” to content or system morpheme status”. The Estonian pronoun see ‘this’ opens the sentence. Russian že ‘but’ is an emphasizing pragmatic particle. The verb on ‘be 3SG’ is pure Estonian and behaves following Estonian grammar rules. Russian legko ‘easy’ is an adverb. These reasons make it difficult to see how the language of the independent words could itself determine the ML.

Analyzing Russian and Estonian conflicting word-order patterns, Verschik (2002) also shows that switches are possible in such cases (see Excerpt 10).
Excerpt 10

*H: Priehala vesti dela o prodaže kinnistu.

%glo: Came-SG Fem to conduct business-Acc PL on sale-Fem Loc SG real estate

%tra: She came in order to arrange the sale of her real estate

%com: different word order in NP:

Est: kinnistu müük (real estate:Gen sale)
Rus: prodaža nedvižimošči (sale real estate-Gen)

In Estonian, the word-order pattern is Noun Gen + Noun Nom: kinnistu müük ‘real estate sale’ (kinnistu ‘real estate’, müük ‘sale’), whereas in Russian the word order is the reverse (Noun Nom + Noun Gen): prodaža nedvižimosti (prodaža ‘sale’, nedvižimost’ ‘real estate’). The code-switched sentence follows the Russian word order.

Clyne (2003) gives examples of bilinguals who substitute the word order of their L1 for the word order of L2 which is the sociolinguistically dominant language. Excerpts 11 and 12 will show how word order patterns from Estonian (L2) are introduced into Russian (L1).

The main problem of the equivalence constraint is that it attempts to identify points at which CS is blocked, rather than explaining why certain constituents can be switched. Similar constraints on intra-clausal CS appeal to the notion of government referring to the relation between the head of the construction and its complement. The government constraint has been applied to CS by Anne-Marie Di Sciullo et al (1986). According to the authors, CS [they call mixing – A. Z.] can occur at such points of a sentence where there is no government relation between the elements but is prohibited where a government relationship prevails between constituents (Di Sciullo et al 1986: 4). Excerpt 11 provides clear evidence of CS between the noun and noun phrase (NP) in spite of different NP word order in Estonian and Russian.
Excerpt 11

A girl takes private classes in the Estonian language; the other girl is asking if the classes help in the school studies.

\*G: Tvoim@1 eesti@2 keele@2 urovnem@1 

dovol’ny@1 ?

%glo: your Estonian:Gen language-Gen level-Instr SG satisfied

%tra: are they satisfied with the level of your Estonian skills

In Estonian, the word-order pattern is Adj Gen + Noun Gen + Noun Instr: eesti keele tasemega ‘level of Estonian language’ (eesti ‘Estonian’, keele ‘language’, tasemega ‘level’), whereas in Russian the word order is the reverse (Noun Instr + Adj Gen + Noun Gen): urovnem èstonskogo jazyka (urovnem ‘level’, èstonskogo ‘Estonian’, jazyka ‘language’).

Excerpt 11 a

Est: Kas sinu eesti keele tasemega ollakse rahul?
Rus: Tvoim urovnem èstonskogo jazyka dovol’ny?
CS: Tvoim eesti keele urovnem dovol’ny?

‘Are they satisfied with the level of your Estonian skills?’

Although the speaker is not very proficient in Estonian, she follows Estonian word order in the NP. Notice that all the dependent words in the NP come from Estonian and the Russian word urovnem ‘level-Instr SG’ is placed in the clause where it would be more likely occur in Estonian than in Russian (see Excerpt 11 a).

According to Di Sciullo et al (1986) elements related to each other by government must be drawn from the same lexicon, or in their terms, must have the same language index. Even if word order in a constituent differs in two languages, the switch is possible. Thus, government constraint cannot be upheld in
light of the evidence from Russian-Estonian CS: the switch can occur between a Russian head and an Estonian modifier and vice versa. Russian elements that are syntactically governed by an Estonian head can be switched. This claim is endowed by Excerpt 12 as well.

Excerpt 12

*S: A@1 v@1 bakalavrskoj@1 možno@1 ispol’zovat’@1 seminarskoj@1 raboty@1 osad@2 ?
%glo: But in bachelor’s allowed to use seminar:Gen work:Gen parts
%tra: Is it allowed to use parts of the wor paper in a bachelor’s thesis
%com: Est: seminaritöö osad
workpaper:Gen part-Nom PL
Rus: časti seminarskoj raboty
part-Nom PL seminar-Gen work-Gen
CS: seminarskoj raboty osad
seminar-Gen work-Gen part-Nom PL
‘parts of the work paper’

The internationalism facilitates CS. It is possible that the speaker intended to say seminaritöö osad ‘parts of the work paper’. The ambiguous stem seminar ‘seminar’ could cause and facilitate the switch. Clyne (1967, 1987) calls it the triggering effect or later, facilitation (see Clyne 2003: 168 on similar examples). Triggering means that some borrowed words or homonymous words which are close to each other in L1 and L2, may trigger CS at almost any point in the sentence. Another possible point that facilitates the switch is the Estonian word order.

The Excerpts 11 and 12 are somewhat similar. If in the former the Estonian part of the phrase was in the genitive case (eesti keele), then in the latter the Russian part of the phrase (seminarskoj raboty) was in the genitive case, as well. Both instances exhibit Estonian word order.
In Excerpt 13 we have a compromise NP. It comprises the Russian head and the Estonian adjective. The phrase is not clear for monolingual speakers of either language.

Excerpt 13

*S:  Ja@1 učus’@1 na@1 filologičeskom@1 teaduskond@2e@1
%glo: I study  on philological faculty-Loc SG
%tra: I am studying at the faculty of philology
%com: Est: Ma õpin filoloogiateaduskonnas
       Rus: Ja učus’ na filologičeskom fakul’tete
       CS: Ja učus’ na filologičeskom teaduskonde

The Russian adjective *filologičeskom* ‘philological’ precedes the Estonian noun *teaduskond* ‘faculty’. The latter is morphologically integrated into the Russian matrix: the word is taken as Russian 2\textsuperscript{nd} declension class and the end \textit{-a} is added in the locative. The bilingual homophone *filolog* ‘philologist’ can facilitate the switch.

The occurring structural contact-induced changes move towards new mixed grammar of the emerging variety of Russian that is a combination of L1 and L2 grammars. Switches within sentences or clauses are not restricted by any surface-level morphosyntactical constraint.

5. Discussion and conclusions

This paper deals with some of the general tendencies of Russian-Estonian CS morphology and structural features. Incorporating L2 lexical items into L1, bilinguals operate according to the grammatical rules of their L1 and vice versa. Bidirectionality is found in the Russian-Estonian data: code-switched clauses can follow monolingual Russian as well as monolingual Estonian word order.
Analyzing the integration of L2 items into L1 grammar, the notion of the ML was taken into consideration. According to Myers-Scotton’s (1997 a: 82) Matrix Language Hypothesis, the ML is the base language which sets the grammatical frame in mixed constituents, that is, into which items from the other language, the EL, are inserted. The determination of the ML turns out to be difficult for different reasons (the position of languages in the community, language proficiency, number of L1 and L2 morphemes in the sentence, etc).

Russian-Estonian CS data support Clyne’s (1987) claim, who points out that although the grammatical constraints may describe some general tendencies, other factors may play a role in CS. A researcher never knows how objective the constraints proposed by language contact theorists are. Frequent switches in bilingual speech often violate constraints. As switches within sentences or clauses are not restricted by any surface-level grammatical constraint, the occurring structural contact-induced changes and movement towards a new emerging variety of Russian with a mixed grammar consisting of a combination of L1 and L2 grammars, could be predicted.

References


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Koodivahetus ja keelekontaktidest tulenevad muutused eestivene keeles

Resümee

Artikli eesmärk on näidata vene-eesti koodivahetuses levinud struktuurseid ja morfoloogilisi malle. Esitatud keeleaines pärineb vene-eesti koodivahetuse korpusest, mis on valmimas Tallinna Ülikooli üld- ja rakenduslingvistika õppetooli juures.


**Võtmesõnad:** konvergents, koodivahetus, piirangud, keelekontakt, keelekontaktist tulenevad muutused, maatrikskeel, eesti ja vene keel