

Petar Kehayov (Regensburg), Denis Kuzmin (Helsinki/Petrozavodsk) & Rogier Blokland (Uppsala)

## Reflections of Russian dialect geography in Djorža Karelian

Can we place an Eastern Finnic dialect on the map, based exclusively on the Russian influence on its phonology and grammar? How precisely do differences between Russian (sub-)dialects manifest themselves in Eastern Finnic? Due to its unique location, far from its relatives, and its contacts with different Russian dialects, Djorža Karelian is a promising tool for answering these questions. We explore the distribution of three phonological features in Djorža Karelian vocabulary borrowed from Russian; all of them correspond to isoglosses on the Russian dialect map. In addition, we also briefly examine one syntactic feature in this Karelian variety: the distribution of two borrowed conjunctions with similar meaning and a North–South divide in Russian dialects. We conclude that phonology is not the best detector of contact between dialects of non-cognate languages, because of the relatively small sound inventory of the contact languages and the problems in distinguishing externally driven change from internally driven change. Syntax seems to be a better diagnostic for such contact, because of its complex relationship with meaning. We go on to demonstrate how syntactic evidence from a non-Slavic variety can be suggestive for the occurrence of linguistic phenomena in Russian dialects.

### 1. Introduction

In contrast to what is often assumed in Finnic linguistics (e.g. Novak 2019: 229, 244), the Djorža variety of Tver Karelian cannot yet be considered extinct. Following a tip from the historian Aleksei A. Blandov, in the summer of 2019 we carried out an expedition to the area to see whether it was in fact still spoken, and we found five speakers of this southernmost Karelian variety.<sup>1</sup>

The interviews<sup>2</sup> we recorded with these speakers illustrate the current state of Djorža Karelian, which is similar to the conditions in which we find other nearly-moribund Finnic varieties. Our oldest informant was born in 1932, and the youngest in 1946. Two of the informants are relatively fluent native speakers, whereas the other can be characterized as semi-speakers (see Trudgill 2011: 35); i.e. speakers who have passed the critical threshold for language acquisition in their childhood, but have not achieved full acquisition. Three of the informants live in Semënovskoe village, one in Novoe and one in Vasil'evskoe. Because of the distance between their homes and their ages, these individuals do not see each other, and if they do, they communicate in Russian.

---

1. Two of the authors of this study, Petar Kehayov and Denis Kuzmin, participated in the expedition.

2. These interviews can be accessed at the University of Tartu Archives of Estonian Dialects and Kindred Languages (<https://murdearhiiv.ut.ee/>) under the code numbers ranging from DS0252-01 to DS0252-10.

Our initial plan was to publish a report on the present sociolinguistic and structural condition of Djorža Karelian, based on the interviews with its last speakers. Soon, however, it became clear to us that we would leave this for another occasion and instead study the available material, but with a broader desideratum in mind.

On a map of Finnic dialects Djorža Karelian is an outlier in Central Russia. Spoken in the southern part of Tver Oblast, just a few miles from Smolensk and Moscow Oblasts, it is separated from the Karelian settlements in the central part of Tver Oblast by more than 150 kilometers.

*Is this geographic location reflected linguistically?* The maps of the Karelian Dialect Atlas (DAKJa), the most logical source to use to show the linguistic distance between Karelian varieties, indicate that the isolation from other Karelian dialects has, indeed, linguistic correlates: from the 209 variables included in DAKJa, in 56 cases Djorža Karelian manifests unique phonological, morphological or lexical features, i.e. features distinguishing it from the other Karelian dialects, including those spoken in Tver Oblast.

A common cause of divergence from cognate varieties is language contact, and in this study we focus on contact between substandard geographic varieties of Karelian and Russian. With the exception of onomastics and etymology, Finnic linguistics has paid little attention to the question of exactly which East Slavic variety their object language has been in contact with and how is this reflected in the structure of the latter.<sup>3</sup> The issue is often exhausted by mere reference to “Northern” or “Central” Russian dialects. In this study, we aim to go beyond these groupings, and to try to find out whether and how the Russian dialect landscape is reflected in Djorža Karelian texts, i.e. does the Russian material in Djorža Karelian allow us to say more specifically which (sub-)varieties of Russian it has been in contact with.

As a starting point, let us juxtapose a map of the Finnic varieties with a map of Russian dialects (using map VI of Volume I of the Russian Dialect Atlas [DARJa I]). It is immediately clear that Djorža Karelian is the only Finnic variety that could have been in contact with Southern Russian (*южное наречие*), and this already in pre-Petrine times: already from the 1580s onwards, but especially after 1617, when Sweden started to heavily tax the local population in the areas it had recently acquired and to forcibly convert the Orthodox Karelians to Lutheranism, many Karelians migrated from Karelia deeper into Russia (cf. Korablëv et al. 2001: 130–134). Djorža Karelian, like the other Tver Karelian varieties, originates in the southern part of the (contemporary) area of Karelian Proper. On their journey to the south, the ancestors of Djorža Karelians encountered other Eastern Finnic groups, but the linguistic traces of these contacts have not been studied. They finally settled in a region which is still within the area of the Central Russian dialects (*среднерусские говоры*), but which is almost on the border with Southern Russian. Browsing DARJa further, it becomes clear that “Central” and “Southern” are coarse generalizations that do not mean much, and that

3. One exception is Ojanen (1985: 27), who mentions in her book on Russian influence on the Lude adjective that she tries to discern which varieties of Russian have been in contact with Lude.

it is better to work with specific features and respective isoglosses. The isoglosses relevant to this study and the location of Djorža Karelian villages are presented on Map 1 in Section 3.1 below; a larger scale map of the Djorža villages can be found in Punžina (2001: 7).

One could also think of this as a theoretical exercise. If we did not know where Djorža Karelian is spoken, could we locate it on the map based on the Russian material that can be found in it? In other words, does the linguistic structure originating from Russian in this variety contain sufficient dialect traces for us to pinpoint this Finnic language island on the map, or perhaps even to outline the historical migration route of its speakers?

These questions can be subsumed under a more general question: to what extent does Russian dialect geography manifest itself in the enormous number of Eastern Finnic dialect texts published since the 19th century? Even the Karelian dialect of Djorža, marginal as it is, is documented by more than 350 pages of published transcriptions. Code-switching and other types of interference occurring in text materials from Finno-Ugric languages are often ignored in the analysis of these materials, but from a contact-linguistic point of view this evidence is no less valuable than the structure of the object languages.

We may also change our viewpoint and look at the issue from a Russian dialectological perspective. The Russian rural dialects are rapidly disappearing. The maps of DARJa illustrate the variation observed in the mid-20th century, but in 1986, when the first volume of the atlas was published, the situation had already drastically changed (DARJa I/Vs: 9). Can we obtain new information about the Russian rural varieties from their extant, and as a rule better documented, non-Slavic contact varieties?<sup>4</sup> Is it possible that the latter have borrowed and retained Russian dialect traces that are lost from the modern Russian varieties spoken in the area?

Answering all these questions is an ambitious agenda, and we will only take a small step in this direction: in our paper we examine three phonological features which are frequently attested in Russian loanwords occurring in Djorža Karelian narratives. The isoglosses depicting the geographic distribution of these features are major watersheds on the map of Russian dialects, and they all run close to the area where Djorža Karelian is spoken. For the sake of comparison, at the end of this study we briefly survey one lexical-syntactic feature (the use of two disjunctive markers), the distribution of which in the Russian dialects has not been studied in any detail, but which nevertheless shows a clear North–South divide, and which is amply present in Djorža Karelian texts. Although in this case we do not have an explicit Russian dialect isogloss to help us, the insight gained from the examination of this syntactic parameter is significant, as it shows that contact-language material can be used to refine Russian dialect descriptions.

The study is based on three collections of Djorža Karelian data: Õispuu (1990), Punžina (2001), and our own recordings from 2019 (henceforth referred as KehKuz

---

4. By examining the Slavic loanwords in Hungarian Richards (2003) attempted something similar in his endeavour to ascertain what kind of Slavic was spoken in Pannonia before the Hungarian conquest.

2019). Õispuu (1990) contains transcriptions of texts recorded in the period 1984–1988, and Punžina (2001) in the period 1967–1971. The basic field method Punžina and Õispuu used is participant observation, which produces more or less spontaneous narratives. Their text collections cover monologues and conversations on various topics, including autobiographical reminiscences, description of rituals and ceremonies, stories about professional activities, etc. Punžina (2001) comprises narratives produced by seven informants and Õispuu (1990) by six, but two occur in both, i.e. the two collections contain texts from altogether eleven individuals.

For the most part, the following discussion is based on evidence from this cumulative data. In some cases, however, we resort to a slightly different data set, each time explaining the reasons for doing so. Most importantly, we also included words from Õispuu's morphological dictionary of Djorža Karelian (Õispuu 1995) which did not occur in Õispuu (1990) in the phonological part of the study; we did not do this for the syntactic part, as the dictionary does not contain examples in context. Punžina (2001) and Õispuu (1990) could be OCR-ed, KehKuz (2019) could not be made automatically searchable. In case of very frequent phenomena, we resorted exclusively to Punžina (2001), thus sparing us from searching through the other sources. Finally, the most recent data (KehKuz 2019) was not used in the study of the disjunctive markers (in the syntactic part), for two reasons. First, it was impossible in 2019 to elicit connected narratives sufficiently long for such a study, because the consultants tended to switch over to Russian. Secondly, the dominant language of our consultants is common spoken Russian, which has only one of these markers.

In Section 2, we present some basic facts about Djorža Karelian, its documentation and research history, and about its presumed but linguistically still unelucidated Russian dialect strata. Section 3 is devoted to the phonological features of the Russian borrowings occurring in Djorža Karelian texts. In Section 4 we analyze the distribution of the disjunctive markers, and in Section 5 we sum up the results of the study.

## 2. Djorža Karelian as an object of research interest

In 1911, Juho Kujola visited the area and carried out interviews in Novoe village, becoming the first linguist to have worked with this variety of Finnic. The first texts, however, were only published in the second half of the 20th century: in 1963, Grigorij N. Makarov included 11 pages of Djorža Karelian texts with Russian translations in his Tver Karelian language samples (Makarov 1963), in 1970 Paula Palmeos published a sample of nine pages (Palmeos 1970b), and in 1994, 16 pages of Djorža texts were published in a volume with Karelian language samples (NKK). A breakthrough in the accessibility of Djorža Karelian to researchers occurred with the work of Õispuu (1990) and Punžina (2001): the former contains exclusively Djorža Karelian texts, the latter mostly such texts. These two collections amount to some 90% of the total material published in Djorža Karelian. Besides the text collections, important tools for

those interested in this Finnic enclave are Õispuu's glossary of nouns and adjectives (Õispuu 1988) and his morphological dictionary of Djorža Karelian (Õispuu 1995).<sup>5</sup>

There is a small number of articles on Djorža Karelian. For phonology, the major sources are the articles of Paula Palmeos (e.g. Palmeos 1966; 1968; 1970a), as well as Õispuu (1985). The major sources for morphology are other papers by Palmeos (e.g. Palmeos 1973; 1976; 1980), the unpublished candidate dissertation of Punžina on nominal categories in Tver Karelian dialects (Punžina 1975), and Õispuu's book on the inflectional system of Karelian enclaves (Õispuu 1994).

The most distinctive features of Djorža Karelian, in relation to other Karelian varieties, are syncope and apocope. Syncope affects primarily unstressed vowels within the word: *lämtät* 'you heat up' (Õispuu 1990: 16) (cf. Karelian Proper<sup>6</sup> *lämmität* [KKV]), (*brihat*) *tortah* '(boys) fight' (Õispuu 1990: 22) (cf. Karelian Proper (*brihat*) *toratah* [KKV]). Apocope stands for elision of the final vowel: *jòg talošt* 'from each house' (Õispuu 1990: 18) (cf. Karelian Proper *joga talošta* [KKV]), *el\_it* 'Don't cry!' (Õispuu 1990: 141) (cf. Karelian Proper *elä ite* [KKV]).<sup>7</sup> Syncope and apocope are productive processes, occurring in recent loanwords;<sup>8</sup> see e.g. the syncope in *zavdat* 'factories' (Õispuu 1990: 13) (cf. Rus. *заводы* 'id.') and the apocope in *podrüg* 'female friend' (Punžina 2001: 79) (cf. Rus. *подруга* 'id.').

Both syncope and apocope seem to be very recent phenomena that have emerged in the 20th century (Õispuu 1985: 181; Palmeos 1965: 39). According to Õispuu (1985: 181), the reasons for syncope are internal, and, just like elsewhere in Finnic (e.g. in Estonian, Livonian and Veps), are related to syllable-stress and -length. In Djorža Karelian, however, the process is more advanced than in other Finnic varieties, as the length of the first syllable is no longer crucial for the occurrence of syncope, i.e. syncope also occurs after short syllables, e.g. *immäh* 'suck' (Õispuu 1985: 178) (cf.

5. These are the only lexicographical sources, if we do not count the 44 borrowings from Central Russian dialects listed by Punžina at the end of her text collection from 2001.

6. For the sake of comparison, the examples presented in brackets are from Karelian Proper, which is a descendant of the variety spoken by the ancestors of Djorža Karelians.

7. For the exact phonotactic conditions of syncope and apocope in Djorža Karelian, see Õispuu 1985.

8. "Russian" loanwords present in varieties of Karelian can be roughly divided into two main groups: words borrowed from Proto-East Slavic (or "Early Middle Slavic"; see Kallio 2006: 157) into Proto-Finnic (from which Karelian evolved), and words borrowed from Russian proper into Karelian; it is generally assumed that Proto-East Slavic split into Russian, Belarusian and Ukrainian in the 13th/14th century. For details on the different sound substitutions occurring in Slavic/Russian loanwords from the two groups in Finnic, see e.g. Kalima 1952: 30–80; Plöger 1973: 238–268; Kallio 2006; Blokland 2009: 327–357.

Tver Karelian *imõtäh* [SKJa: 70]).<sup>9</sup> As regards apocope, Õispuu (1985: 181), Punžina (2001: 6) and recently Novak (2019: 235–236) and Novak et al. (2019: 47) have claimed that it arose under the influence of the adjacent Russian dialects. It is true that a similar development is attested in Russian dialects, cf. vowel loss at the end of the word, in the syllable immediately following the stressed syllable: *можн* ‘maybe’ (cf. Standard Russian *можно*), *скол’к* ‘how much’ (cf. *сколько*), *плох* ‘bad(ly)’ (cf. *плохо*), *бур* ‘storm’ (cf. *буря*), *туч* ‘(rain) cloud’ (cf. *туча*). Such forms occur, however, in the eastern part of Southern Russian, in the dialects spoken in Ryazan, Tambov, Voronezh, Lipetsk and Penza Oblasts (DARJa I: map 32). The closest location where such forms occur is about 400 km away from the area where Djorža Karelian is spoken, and therefore the genesis of Djorža Karelian apocope should be sought elsewhere.<sup>10</sup>

The villages where Djorža Karelian is spoken are located in the southeastern corner of the western group of the Central Russian dialect area. The local Russian vernaculars belong(ed) to the Seliger-Toržok dialect of the western Central Russian dialects, although, judging from map VI of DARJa I, only a few miles away vernaculars belonging to eastern Central Russian dialects and to the Upper-Dnieper group of Southern Russian were spoken. These groupings, especially the Upper-Dnieper one, are contested in Russian dialectology (Aleksandra Ter-Avanesova, p.c.), and therefore, as mentioned above, we will work with individual features and isoglosses.

Superimposing a Karelian dialect map on different maps in DARJa, we see that Djorža Karelian is located at an intersection of dialect areas; it is literally sitting on a bundle of Russian dialect isoglosses. We should not forget, however, that the area suffered immensely in World War II. During the Battles of Ržev (January 1942 – March 1943), the front moved for several months through the Djorža Karelian villages. Those inhabitants of the area that did not follow the Red Army troops were evacuated by the Germans to Smolensk Oblast. Overall, more than half of the inhabitants of the Djorža Karelian villages died during the war (Palmeos 1965: 35). This and the influx of

9. Virtaranta (1972: 12), Novak (2019: 235, 236) and Novak et al. (2019: 46) write that this syncope might be a result of Russian influence, but regrettably they do not present any evidence in support of this hypothesis. We do not exclude the possibility that syncope is related to language contact; among other things, it is a phenomenon accompanying loanword adaptation. In newer Russian loanwords and toponyms, for example, it is also attested in other varieties of Tver Karelian; see e.g. (elicited by Denis Kuzmin) *Vornišša* (< *Воронище* [a meadow name], Gorka, Maksatikhinsky District), *Dešt’inä* (< *десятина* [a field name], Dolgovo, Maksatikhinsky District), *Barbaniha* (< *Барбаниха* [a village name], Goristoe, Maksatikhinsky District). The first syllable in such borrowings takes the stress (Karelian has word-initial stress), becomes heavier, and causes the second syllable to be reduced through vowel loss.

10. Õispuu writes that in the local Russian dialect he has heard (nominative) forms like *улиц* ‘street’ (instead of *улица*), *квартир* ‘apartment’ (instead of *квартира*), *утр* ‘morning’ (instead of *утро*), as well as *три комнат* ‘three rooms’ (instead of *три комнаты*) and *через четыре дом* ‘after four houses’ (instead of *через четыре дома*) (Õispuu 1985: 181). We could not find information in the literature on Russian dialects about the occurrence of such forms in this area, and neither were the Russian dialectologists we consulted aware of such forms in the area. Therefore, Õispuu’s observations can perhaps not be regarded as credible evidence for Russian influence in the genesis of Djorža Karelian apocope. Most likely, we are dealing with peculiarities of individual speech and not with geographically determined variants.

*dačniki* (summer residents) from Moscow (only 170 km away) in the post-war period has led to the extinction of the Russian rural dialects in the area, probably earlier than in other parts of Central Russia. This brings us back to the question whether we can find traces of these Russian dialects in Djorža Karelian texts.

### 3. The sound structure of the Russian loans in Djorža Karelian

In this section, we survey three prominent isoglosses that cut through the East Slavic dialect area. These isoglosses traverse the area where Djorža Karelian is spoken, and their phonetic characteristics are echoed by the forms Djorža speakers produce, although these characteristics correlate with internal Karelian (or Finnic) sound changes.

Before we examine the distribution of these characteristics in the material, one methodological caveat needs to be stated: how can we investigate vowel and consonant characteristics based on published transcripts? On the one hand it would, of course, have been better to use original audio data, but on the other hand we are interested in phonological systems, not in phonetics. The primary concern of the transcribers of Punžina's and Ōispuu's recordings has been the Karelian of the interviewees, and not their Russian. The fact that a sound characteristic of Russian, especially if it is exceptional (e.g. diverges from the pronunciation of Standard Russian and/or does not correspond to Karelian loanword adaptation patterns), is graphically manifested in the Karelian text indicates that this characteristic was in some way meaningful to the transcriber. Regular representation of the same Russian sound quality with the same grapheme in Karelian texts suggests that this quality is perceived as systematic by the transcriber.<sup>11</sup>

The isoglosses in focus mark the geographic distribution of:

- i) akanye (conditional phonetic merger of /o/ and /a/ in unstressed position) versus okanye (respective differentiation of /o/ and /a/); cf. akanye in *нага́* 'leg; foot' – *трава́* 'grass' and okanye in *нога́* – *трава́*;
- ii) lenition of [g] to [ɣ] or [h] or loss (in certain conditions) versus retention of [g] (cf. *доро́га* 'road' and *доро́га/доро́ха*);

---

11. Based on these considerations, we decided to present the linguistic examples in the transcription in which they occur in the original published source. Sometimes this causes forms with identical pronunciation to occur in different graphic representations in the text. We hope the reader will forgive us this decision, because we have good reasons for it: firstly, we wanted the examples we cite to be easily traceable in the primary sources (text collections, dictionaries) from which they come, especially if these sources can be searched automatically. Secondly, as we study sound systems by trusting the ear of the transcriber, we decided to retain his/her transcription choices, even if they are disturbing the exposition and, in fact, are irrelevant to the object of our investigation. Modifying the graphic shape of examples by "transliterating" them into a unified system, and at the same time drawing inferences based on the original transcription choices of the author could undermine the credibility of our statements, a price which we did not want to pay for the sake of having a simple transcription.

- iii) weakening of [v] into an approximant [w] (or into a vowel-like [ʉ], Cyrillic [ŷ]) versus retention of [v] in inlaut or word-final position (cf. *давнó* ‘long ago’ and *давнó/даŷнó*, *готóв* ‘ready’ and *готóв/готóу*).<sup>12</sup>

We consider the first value of each feature variable to be the “marked value”, on which we concentrate. This is obvious for variables (ii) and (iii), where the first value (i.e. [ʉ], [h] and [w], [ʉ]) is the one occurring only in territorially restricted phonological systems, whereas the second ([g] and [v]), in addition to its occurrence in territorial variants, is characteristic for Standard Russian. Naturally, occurrences of the values marked exclusively as dialectal are more informative for this study, and therefore we focus on them. For variable (i) the situation is not so clear-cut, but we choose to consider akanye (the first value) as the marked value. Okanye is the orthographic norm in Standard Russian (<вода> ‘water’), which reflects the pronunciation in Northern Russian dialects ([vo'da]), but in common spoken Russian the dominant pronunciation pattern is akanye ([vɐ'da]). The reasons to consider akanye as marked and okanye as unmarked are related to Finnic phonotactics, which, as we will see below, favors a loanword adaptation model which keeps (or produces) a pronunciation with /o/ in this position.

We proceeded as follows. First, we collected all occurrences of the marked value of each variable from the text collections of Õispuu (1990) and Punžina (2001). This data was then augmented by occurrences from Õispuu’s morphological dictionary (1995)<sup>13</sup> and our recordings from 2019 (KehKuz 2019).

Instead of being concerned with code-switching and other chunks of speech *in Russian*, we are concerned with borrowings or transfers of words (and word forms) manifesting some degree of integration *in Karelian* and occurring within structures composed in accordance with Karelian grammar. In particular, we looked for word forms satisfying the following two criteria: a) the form does not contain Russian inflectional morphology; b) the form occurs between words which are either inherited Karelian words or fully adapted (older) Russian loanwords.

### 3.1. Vowels: akanye and related phenomena

The term “akanye” has a broad and a narrow use in Russian dialectology. In its broader sense, it describes a vowel system in which the non-high vowels /a/ and /o/ occurring in unstressed position do not preserve their distinctive features and merge (or are neutralized) (Knjazev 2001: 8). In its narrow sense, akanye stands for neutralization of the distinction between /a/ and /o/ in the pretonic syllable, after a non-palatalized consonant (except *c*, *š* and *ž*), e.g. *нага́* [nɐ'ga] ‘leg; foot’ (cf. Standard Russian *нога́*), *вада́* [vɐ'da] ‘water’ (cf. Standard Russian *вода́*) (see DARJa I/Vs: 82–84; Strogonova 1973: 47; Avanesov 1974: 143–149; Knjazev 2001: 8).

12. Following DARJa I (map 56) we use [w] here in Cyrillic.

13. In his dictionary Õispuu also included words which did not occur in his own material but occurred in Kujola’s materials from 1911 (Õispuu 1995: 9).



Here we follow the narrow reading of the term, but we are also interested in a) the phenomenon occurring in other unstressed syllables, not only in the pretonic one, e.g. *калбасá* [kəɫbʌ'sa] ‘sausage’ (cf. Standard Russian *колбасá*), *хóлад* [ˈxolət] ‘cold, chill’ (cf. Standard Russian *хóлод*) (DARJa I/Vs: 104–105, 112–114; DARJa I: maps 9, 17), and b) in the phenomenon occurring at the absolute beginning of the word, e.g. *атнъя́л* [ʌtʰnʲal] ‘(s/he) took away / has taken away’ (cf. Standard Russian *отнъя́л*), *агарóд* [ʌgʌˈrot] ‘vegetable garden’ (cf. Standard Russian *огорóд*) (DARJa I/Vs: 135–136; DARJa I: maps 33, 35, 36).

It can be seen from the phonetic notation in the examples that the sound quality of the merged vowel depends on its position. In the pretonic syllable and in the absolute beginning of the word, it corresponds to the low-mid back vowel [ʌ]. In the pre-pretonic syllable beginning with a consonant or in post-tonic syllable, it is (further reduced to) the mid-central vowel [ə]. As our focus here is on the phenomenon of akanye in general (i.e. on the indistinguishability of /a/ and /o/) and not on the exact quality of the merged vowel, we will henceforth represent both [ʌ] and [ə] as Cyrillic *a*, i.e. *нага́*, *калбасá*, *хóлад*, *атнъя́л*, *агарóд*.

The approximate boundary of akanye and okanye is shown on Map 1 below; it is displayed by the northernmost isogloss on the map. The line representing this isogloss is an oversimplification, which rather shows where the prevalence of okanye changes into a prevalence of akanye; see the arrows on the map.<sup>14</sup>

Table I in the Appendix presents the borrowed words extracted from the data which meet the selection criteria mentioned in the introductory part of Section 3, and instantiate akanye in the pretonic syllable. The instantiations of akanye in other phonotactic environments are presented in Table II of the Appendix.

In this section we deal exclusively with type and not with token frequency. This means that we do not count how many times different forms of a certain lexeme feature akanye. We count only lexemes, not (frequencies of) different forms of the same word.<sup>15</sup> For considerations of space, we also count together as variants of the

14. Akanye is phonetically realized in two major ways, called “strong akanye” (or “non-dissimilative akanye”) and “dissimilative akanye”. The Djorža Karelian villages are located within the area of strong akanye, but are very close, probably less than 15 km from the area of so-called “Žizdra (Belarusian) dissimilative akanye” (*Жиздринское [белорусское] диссимилятивное аканье*); the approximate isogloss demarcating the boundary of these two types of akanye can be seen in DARJa I (map 1). In strong akanye, the neutralization described in the narrow definition above takes place irrespectively of the vowel phoneme occurring in the tonic (stressed) syllable; i.e. /a/ and /o/ in the pretonic syllable merge into [ʌ] regardless of the quality of the stressed vowel. In dissimilative akanye, the quality of the pretonic vowel depends on the quality of the tonic vowel. Its Žizdra type is defined by the following: if the stressed vowel is high or middle (/i/, /u/, /e/, /o/), the pretonic /o/ and /a/ merge into [ʌ], e.g. *в вадé* ‘in (the) water’ (cf. Standard Russian *в водé*), but if the stressed vowel is /a/, the pretonic vowels merge into a middle vowel, typically [ə], e.g. *вада́* ‘water’ (cf. Standard Russian *вода́*). Unfortunately, we cannot discriminate between these two types of akanye in our material, as Õispuu (1990) and Punžina (2001) do not indicate [ə] in their transcription systems, which makes it impossible to distinguish Žizdra akanye from the strong akanye in their texts.

15. In the rightmost columns of Tables I and II of the Appendix we refer only to one page number on which the given word occurs in the source, although in many cases it also occurs elsewhere. If it occurs in other sources, respective references are added. However, the first referred source contains the specific form presented in the tables.

same lexeme members of derivational families which have the stress in Russian on the same syllable. Accordingly, the first words in Table I *bajař* ‘boyar’ and *bajuřin* ‘wife of the boyar’ are counted as one single lexeme. On the other hand, some lexemes occur more than once in the tables in the Appendix, because they feature akanye both in the pretonic syllable and in the pre-pretonic syllable.

*Are there many or few occurrences of akanye in the material?* In order to answer this question a basis for comparison is needed. We can compare the number of occurrences of akanye in our material either with the frequency of akanye elsewhere in Karelian or with the frequency of okanye (i.e. retention of /o/) in Djorža Karelian. In other words, we can confront our set of occurrences of akanye with populations which differ from it geographically and/or in terms of vowel quality.

We first manipulated the geographic variable. We looked for the 74 lexeme roots<sup>16</sup> featuring akanye in our Djorža Karelian data in two Karelian dictionaries. The first is the monumental online dictionary of Karelian (KKV), which contains material from all major Karelian dialects, while the second is a dictionary of Tver Karelian dialects (SKJa), which comprises Central Tver (Tolmači, Maksatiha, Rameški) and Northern Tver (Ves’egonsk) Karelian dialects. These dictionaries do not contain data from Djorža Karelian. Of the 74 lexeme roots featuring akanye in Djorža Karelian, 43 did not have corresponding etymons in these dictionaries. Different forms of the remaining 31 lemmata were classified relative to their geographic distribution (“occurrence outside Tver Karelian” vs. “occurrence in Tver Karelian”) and their phonological structure (“substitution of /o/ for /a/ in unstressed syllable” vs. “retention of /o/ in unstressed syllable”). We sought to ascertain whether the frequency of akanye decreases (and, respectively, the frequency of okanye increases) in Russian borrowings when we move from south to the north across Karelian dialects. All Karelian dialects outside Tver Oblast are within the Russian okanye dialect zone. Of the Tver Karelian dialects, Ves’egonsk and the eastern part of Central Tver Karelian are also within the okanye area, whereas the central and western part of Central Tver, just like Djorža Karelian, are within the akanye area. The lexeme forms excerpted from the dictionaries are ordered in Table 1 in relation to our two variables.<sup>17</sup>

The largest set in the table is the set of lexemes attested outside Tver Oblast, and which manifest okanye. This is not surprising: all Karelian dialects outside this oblast have been exclusively in contact with rural dialects of Russian characterized by okanye. It is more interesting that even in Tver Oblast the lexemes with /o/ forms outnumber those with /a/ forms, even though most of the Central Tver Karelian varieties are spoken in the area of Seliger-Toržok dialect of western Central Russian, which is a dialect with akanye (Zaharova & Orlova 1970: 151). On the other hand, it is also interesting that a significant number of akanye forms (in different phonotactic

16. There are 81 items in Tables I and II in the Appendix, but seven of these occur twice, because they display akanye in two unstressed syllables. Subtracting these from 81 we arrive at 74 distinct lexemes with akanye in the data.

17. Note that sometimes the same lexeme occurs in different sets in the table. Such lexemes manifest both /a/- and /o/ shapes and/or occur in both areas.

environments) are found outside Tver Oblast. In general, our impression is that Tver Karelian and the rest of Karelian do not differ much in relation to the distinction between akanye and okanye: okanye comes out ahead in both of them. We will discuss the reasons for this weak correlation between geography and vowel value distribution below.

We can only guess what the proportion would have been of akanye and okanye among the 43 items featuring akanye in Djorža Karelian, if their counterparts had occurred in the dictionaries. The absence of these items in the dictionaries cannot be used as evidence for the higher frequency of the /a/ form in Djorža Karelian vocabulary of Russian origin compared to other Karelian dialects.

Phonological distribution	Dictionary forms with akanye	Dictionary forms with okanye
Geographic distribution		
In Karelian varieties outside Tver Oblast	<p><i>pajari</i> ~ <i>bajari</i> ‘boyar’,  <i>kamot(t)a</i> ‘chest of drawers’,  <i>kanfietta</i> ~ <i>kanfetta</i> ‘candy’,  <i>kart(t)a</i> ‘washing tub’,  <i>kravatti</i> ‘bed’, <i>malittu</i> ~  <i>malitvo</i> ‘prayer’, <i>palat’i</i>  ‘bunk’, <i>saltatta</i> ~ <i>saldatta</i> ~  <i>salduatta</i> ‘soldier’, <i>kalpassu</i> ~  <i>kalpašu</i> ‘sausage’, <i>manasteri</i> ~  <i>manaštiri</i> ‘monastery’,  <i>pavar(i)ttsa</i> ‘ladle’, <i>tohtari</i>  ‘doctor’</p> <p>Σ = 12</p>	<p><i>hosjaikka</i> ‘(house-)wife’ (also  <i>hosjain</i> ‘host’, <i>hosjaiskoi</i> ~  <i>hosjanskoi</i> ‘pertaining to the  host or house/farm’), <i>toroka</i> ~  <i>doroga</i> ‘road’, <i>tovolnoi</i>  ‘contented’, <i>koņešno</i> ‘of  course’, <i>koritšnevoine</i> ‘brown’,  <i>korolesva</i> ‘realm’, <i>krovatti</i>  ‘bed’, <i>mokila</i> ~ <i>mokil’hoaka</i>  ‘grave’, <i>molitvo</i> ‘prayer’,  <i>prorokka</i> ~ <i>prorokku</i> ‘prophet’,  <i>sovietta</i> ‘advice’, <i>spokoi</i> ‘peace’;  peaceful(ly), <i>blahorodnoi</i> ~  <i>plahorotnoi</i> ‘noble’, <i>monasteri</i>  ‘monastery’, <i>pominojjah</i> ~  <i>pominajjah</i> ‘commemorate’,  <i>povarittša</i> ‘ladle’, <i>ohvotniekka</i>  ~ <i>ohotnikka</i> ‘hunter’, <i>opasnoi</i>  ‘dangerously’, <i>osopi</i> ~ <i>osobi</i>  ‘separate’, <i>tohtori</i> ~ <i>tohturi</i>  ‘doctor’, <i>hospoti</i> ~ <i>hospod’i</i>  ‘lord’, <i>trahtor</i> ~ <i>traktor</i> ‘tractor’</p> <p>Σ = 22</p>

In Tver Karelian	<i>bajari</i> ‘boyar’, <i>kamoda</i> ‘chest of drawers’, <i>kanfetka</i> ‘candy’, <i>karta</i> ‘washing tub’, <i>kravaŋti</i> ‘bed’, <i>malittu</i> ‘prayer’, <i>palatŋi</i> ‘bunk’, <i>salduatta</i> ‘soldier’, <i>pavarča</i> ‘ladle’, <i>dohtaŋi</i> ‘doctor’  $\Sigma = 10$	<i>dovoŋnoi</i> ‘contented’, <i>doroga</i> ‘road’, <i>koŋešno</i> ‘of course’, <i>koričŋovoi</i> ‘brown’, <i>molitva</i> ‘prayer’, <i>prorokku</i> ‘prophet’, <i>sovietta</i> ‘advice’, <i>spokoja</i> ‘peace; peaceful(ly)’, <i>blahorodnoi</i> ~ <i>plahorotnoi</i> ‘noble’, <i>monastiŋi</i> ‘monastery’, <i>pomidora</i> ‘tomato’, <i>oŋouša</i> ‘garment’, <i>ohotŋikka</i> ‘hunter’, <i>osobe</i> ‘separate’, <i>tohturi</i> ‘doctor’, <i>hospodŋi</i> ‘lord’  $\Sigma = 16$
---------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Table 1. Equivalents of Djorža Karelian akanye lexemes in KKV and SKJa

We then compared the number of occurrences of akanye with the number of occurrences of okanye in Djorža Karelian vocabulary of Russian origin. It quickly became clear that okanye is more common than akanye, even in this southernmost Karelian vernacular. Table 2 presents the lexeme-based frequency of akanye and okanye, excerpted from Punžina 2001. This text collection contains enough instantiations of akanye and contains earlier data than Ōispuu’s collection. We therefore decided that it alone provided an adequate population for drawing conclusions about the relative frequency of akanye and okanye in Djorža Karelian material.

The frequency of these two vowel qualities was checked separately for all phonotactic environments listed in Tables I and II in the Appendix. Note that just like akanye, okanye sometimes occurs twice in the same lexeme form – in the pretonic syllable and in the pre-pretonic syllable, e.g. *posolomšikal* ‘by the person throwing straw during threshing’ (Punžina 2001: 178) (cf. *к посоломщику* ‘id.’). There were seven such lexeme forms in Punžina’s Djorža texts; these are counted twice, each time in the respective phonotactic class. As our focus is on the phenomenon of akanye (the marked value of this parameter), due to space limitations we will not list all lexeme roots which manifested forms with okanye. Consider however the following examples of okanye:

- i In the pretonic syllable: *podošv* ‘(shoe) sole’ (cf. *подошва* ‘id.’) (Punžina 2001: 26), *dolbittu pačhat* ‘hollowed-out blocks’ (cf. *долблёные колоды* ‘id.’) (Punžina 2001: 33).
- ii In the second syllable before the stressed syllable: *godovoi* ‘annual’ (cf. *годовóй* ‘id.’) (Punžina 2001: 155), *pjettih molotkoi* ‘hammers were kept’ (cf. *молоткú держали* ‘id.’) (Punžina 2001: 94).
- iii In the pretonic syllable, in the absolute beginning of the word: *obidašt* ‘from noon’ (cf. *с обéда*) (Punžina 2001: 16), *ophvatŋiw* ‘s/he covers, takes hold of’ (cf. *обхва́тум* ‘id.’) (Punžina 2001: 38).

iv In the second syllable before the stressed syllable, in the absolute beginning of the word: *otoid'iw* 'it moves away; it ceases' (cf. *omoiðēm* 'id.')

(Punžina 2001: 146), *otjalkan lämmitetäh* 'they heat up the rag (with which a pot is taken out of the oven)' (cf. *отымáлки нагреют* 'id.')

(Punžina 2001: 37).

v In the post-tonic syllable: *hospod'* 'Good Lord!' (cf. *Гóсноду!* 'id.')

(Punžina 2001: 175)

Phonotactics	/a/	/o/
In the pretonic syllable	20	71
In the second or the third syllable before the stressed syllable	7	13
In the pretonic syllable, in the absolute beginning of the word	3	14
In the second or the third syllable before the stressed syllable, in the absolute beginning of the word	4	6
In the post-tonic syllable	1	1
Σ	35	105

Table 2. Number of occurrences of akanye and okanye in Punžina 2001<sup>18</sup>

The figures in Table 2 prove that okanye, i.e. the retention of /o/ and its differentiation from /a/ in unstressed syllables, is more frequent in the Russian borrowings in Djorža Karelian. In total, the instantiations of okanye exceed those of akanye three times. Moreover, the frequency of okanye clearly exceeds that of akanye in each phonotactic class for which we have enough occurrences in the material; see the first three classes in the table.

On the other hand, it can be seen on Map 1 (for a more accurate picture, see DARJa I: maps 9, 17, 33, 35, 36) that Djorža Karelian is surrounded by Russian dialects with akanye. How then can this predominance of okanye in the vocabulary borrowed from Russian be explained, given that since their arrival on the banks of the Djorža River the Karelians have been solely in contact with speakers of Russian akanye dialects?

There are several interfering factors, both Karelian-internal and Russian dialectal factors, which favor the loss of the original distinction between /o/ and /a/ in Russian words borrowed by Karelian. They illustrate how difficult it is to filter out contact-induced phenomena from autogenetic processes in phonological systems of non-cognate language varieties. Some of these factors tip the scale toward the

18. The phonotactic environment is selected according to the form of the Russian inflectional equivalent. For example, the Djorža Karelian verb form *poluččičow* 'it turns out' (Punžina 2001: 54) is appointed to the class "in the pretonic syllable" because of the stress of the corresponding Russian 3SG form (*получится* 'id.'), although the infinitive (the dictionary form) *получиться* would belong to the class "in the second syllable before the stressed syllable". This criterion for assigning borrowed forms to phonotactic environments is vulnerable to criticism, but it is used for lack of a better one.

occurrence of /a/ in the unstressed syllable; others, toward the occurrence of /o/ in the unstressed syllable. The latter produce forms which look like okanye and, as can be seen from Tables 1 and 2, they seem to be either more (in number) or stronger in impact. Okanye prevails in all relevant geographic groups: in the Karelian varieties north from Tver Oblast, in the Central and Northern Tver Karelian varieties, and even in Djorža Karelian. However, let us begin with the factors favoring /a/.

What promotes the occurrence of /a/ instead of /o/ in Russian loanwords? In the earliest loanword layer, East Slavic/Old Russian /o/ is represented by /a/ in Finnic; cf. Fi. *tappara* ‘battle axe’ < ORus. *topórъ*; Fi. *vapaa* ‘free’ < ORus. *svobódbъ* ~ *svobódbъ* ‘id.’; Fi. *pakana* ‘pagan’ < ORus. *rogánъ* ‘id.’; Fi. *papu* ‘bean’ < ORus. *bobъ* ‘id.’ (Mikkola 1894: 36–37; Kalima 1952: 31), as it is generally accepted that in the East Slavic variety from which these loanwords were borrowed *o* (both in stressed and unstressed position; see Plöger 1972: 240) was acoustically similar to the Finnic *a* (Mikkola 1894: 36–37; Kalima 1952: 31–32; Shevelov 1964: 152–156; Birnbaum 1970: 51). In the next layers of older loanwords, this sound-adaptation pattern is also still attested, e.g. Fi. hist./dial. *aprakka* ‘pay tribute’ < Rus. *obrók* ‘id.’ (Kalima 1952: 32; Plöger 1973: 47–48).<sup>19</sup>

This means that Finnic has an old adaptation model where the Russian /o/ is substituted with /a/. Another important source of unstressed /a/ for /o/ are “loanwords” from spoken Moscow Russian or from akanye dialects into okanye dialects of Russian. Intermediaries of such forms may have been priests who had studied in Moscow (or elsewhere in the akanye area) and returned to their parishes, clerks and soldiers who served in the south, etc. Such akanye forms have then entered Karelian varieties from their neighbors in the Russian okanye area. This explains the occurrence of akanye variants in the dictionary material from Karelian dialects spoken north of Tver Oblast; see Table 1 above. Kalima (1952: 32–33) mentions common Karelian *saldatta* ‘soldier’ (< Rus. *coldám* ‘id.’), Olonets Karelian *kravat’i* ‘bed’ (< Rus. *кравать* ‘id.’), *palat’i* ‘bunk’ (< Rus. *полáти* ‘id.’), all occurring in our material, as examples of this transfer chain from akanye to okanye varieties of Russian and from there to Finnic. Although in loanwords from modern Russian (from the 17th century onwards) Russian /o/ is regularly represented in Finnic by /o/ (Kalima 1952: 32–33; Plöger 1973: 240), this vocabulary is not immune to the penetration of akanye variants either, mostly from common spoken Russian. Alongside the hundreds of loans featuring okanye, Olonets Karelian, a variety spoken deeply in the okanye area, has recent (post-19th century) loanwords with akanye: *samalóttu* ‘aircraft’ (cf.

19. There is some disagreement between Kalima and Plöger as to whether Finnish *aprakka* is an old loan (Plöger 1973: 240) or a newer one (Kalima 1952: 32–33).

*самолёт* ‘id.’), *vašimlétnoi* ‘eight-year-old’ (cf. *восьмилётный* ‘id.’), *prepadáija* ‘teach’ (cf. *преподать/преподавать* ‘id.’) (Pyöli 1996: 194).<sup>20</sup>

In general, the chances that an akanye variant of a lexeme will be found in a Karelian variety spoken in the okanye area seem to depend on the register in which the lexeme is used and its overall significance for the society. These factors have an effect on how often it could be heard on TV or radio broadcasting in standard spoken Russian, which is an akanye variety. Many of the lexemes in Tables I and II in the Appendix designate salient concepts from the Soviet reality, e.g. *bašševika* ‘Bolshevik’, *kambaňor* ‘combine operator’, *kanserv* ‘canned food’, *šélsavet* ‘village council’, *samaljot* ‘airplane’, *trahtar* ‘tractor’, *trahtarist* ‘tractor driver’, *traleibus* ‘trolleybus’, *hald’iňnik* ‘refrigerator’, *magnetafon* ‘tape recorder’, *hasudarstv* ‘state’, *pálevodstv* ‘farming’, *aperacia* ‘operation’. Yet, this observation should not diminish the role of the contact dialects. Many of our words belong to traditional domestic vocabulary, e.g. *galadofk* ‘starvation’, *kart* ‘washing tub’, *magilk* ‘cemetery’, *maladňak* ‘young animals’, *malítv* ‘prayer’, *karvod* ‘round dance’, *palatno* ‘linen’, *haladjets* ‘aspic’, *talakno* ‘dry-roasted oatmeal’, *taplónoi* ‘coddled’, *pavarč* ‘ladle’, and their ultimate sources are probably in the neighboring Russian dialects, and not from farther away. These forms are the strongest evidence for contact with akanye dialects of Russian.

Conversely, we can also ask: which factors favor the occurrence of /o/ in unstressed syllables? Such occurrences are the consequence of two phenomena: the retention of etymological /o/ and the substitution of /a/ for /o/ either in Karelian or already in the Russian source variety.

The first such factor is the above-mentioned retention of etymological /o/, i.e. in cases where stressed and unstressed Russian /o/ is substituted by Finnic as /o/. This has been the dominant adaptation model in the last three–four centuries (Kalima 1952: 32–33). Loanwords from the 17th century or later from okanye dialects of Russian generally preserve etymological /o/.

There are also factors in Finnic which cause the substitution of unstressed Russian /a/ with /o/ in Finnic. The transfer of Russian words with unstressed mid-low vowels to Finnic involves a radical transition: Russian has variable stress while Finnic languages have word-initial stress. This transition affects a great number of lexical items, and therefore it requires a stable adaptation model in Finnic. In the Russian akanye area where Djorža Karelian is spoken, the course of events might have been the following: a Russian unstressed syllable with a neutralized vowel distinction (i.e. akanye) is in most cases the first syllable of the word. This syllable acquires stress in

20. In given names, the occurrence of /a/ for /o/ is attested in several Karelian dialects spoken in the okanye area, e.g. *As(s)ippa* (Ócun), *Barissa* (Борис), *Hata* (Фомá), *Hatti* (Фóмуй), *Havana* (Фóфан), *Kanana* (Кóнон), *Platana* (Платóн), *Triifana* (Три́фон). In these Karelian versions of canonical Russian names /o/ is substituted by /a/ in unstressed syllables (*Barissa*, *Hata*), stressed syllables (*As(s)ippa*, *Platana*), and sometimes in both (*Kanana*). In some cases (e.g. *Hata* < Фомá, *Havana* < Фóфан, *Platana* < Платóн) the Karelian form in /a/ seems to be a result of inter-syllabic assimilation. In other cases (e.g. *Hatti* < Фóмуй), the form of the name might be an old borrowing, which took place at the time when Russian *o* was similar to Karelian *a* (Kuzmin 2016: 65).

the process of adaptation to its new Karelian host, as Karelian is characterized by word-initial stress. But syllables carrying the primary stress of the word are generally articulated more clearly and manifest most of the sound inventory of the language. As previously mentioned, this is not the case in the Russian source word, where we have a merger of /o/ and /a/ into a neutralized vowel. In reaction to this, speakers of Djorža Karelian seem to have hyper-characterized the vowel of the now-stressed syllable by articulating it as /o/. This phenomenon is known in Finnic linguistics as “tendency analogy” (Fi. *tendenssianalogia*; Kalima 1952: 46–47) or “emulative analogy” (Fi. *pyrkimysperäinen analogia*; Ojansuu 1905: 26; Pyöli 1996: 194). Being aware of the fact that the Russian /o/ is substituted in their language with /o/, and that there is a merger of /o/ and /a/ in Russian, they “interpret” /a/ in words borrowed from neighboring Russian dialects as /o/. This mechanism produces loanwords in Djorža Karelian which look like okanye forms (e.g. *fomiíl* ‘family; last name’ < Standard Russ. *фами́лия* ‘id.’ ~ Russian okanye dialect \**фоми́лия*; see Table 3 for more examples).

However, this is not the whole explanation. In the Russian okanye area there are minor areas where etymological /a/ is changed to /o/. This substitution takes place in phonotactic environments which otherwise characterize akanye: in the pretonic syllable and after a non-palatalized consonant (except *c*, *š* and *ž*). On Map 1 below, these regions are presented as small dotted areas in the okanye zone. The phenomenon stretches further to the north from the area shown on the map; it is observed e.g. in the area to the east of Lake Onega. Kalima (1952: 46–47) explains this shift in terms of tendency analogy: having heard how in standard spoken Russian /o/ is regularly pronounced as /a/ in unstressed syllables, the speaker of a Russian okanye dialect starts to hypercorrectly “restore” /o/ also in words which originally have an /a/ in their dialect. In the okanye area, /o/ and /a/ are clearly distinguished in the pretonic syllable; cf. *водá* [vo'da] ‘water’ vs. *травá* [tra'va] ‘grass’. But the speakers of Russian living in the dotted areas on Map 1 have started to pronounce *тровá* [tro'va] ‘grass’, thus generalizing /o/, as an unconscious response to the generalization of /a/ occurring in the language of Moscow Russians (and elsewhere). A detailed picture of the geographic distribution of this phenomenon can be seen on map 1 in DARJa I.

Djorža Karelian texts contain many Russian loanwords that show the shift /a/ > /o/ in the pretonic syllable. Such lexemes are presented in Table 3; the list is not exhaustive, but it is sufficient to illustrate the phenomenon.<sup>21</sup> If we accept the hypothesis that at least some of these loans entered Djorža Karelian in their /o/ form, i.e. the shift /a/ > /o/ took place already in Russian, we need to explain how come they occur deep in the akanye area. As can be seen from Map 1, the phenomenon is attested exclusively in okanye varieties of Russian. On the other hand, some of the words in Table 3 are relatively recent borrowings, referring to modern objects and matters that must have entered Karelian after its speakers reached the Djorža River. This in

21. Given names provide further illustration of the phenomenon, e.g. *Okšeń(ie)/Okšeńi(i)* (< *Аксинья*), *Oñiś(śa)* (< *Анисья*), *Ogafij(a)* (< *Агафья*), *Ofoñ(k)a* (< *Афанасий*), *Ontošk(a)* (< *Антон*), *Ondrei* (< *Андрей*) (KehKuz 2019). Some of these names have alternative versions with *a*, e.g. the name *Aganka* (< *Агафья*) (KehKuz 2019) is attested only in Djorža Karelian.



turn raises questions about the history of Djorža Karelian, and in particular, about the contacts of Djorža Karelians with Karelians and/or Russians from the okanye side of the akanye–okanye boundary, contacts which can be held responsible for the spread of such /o/ forms into Djorža Karelian. One should consider the possibility that Djorža Karelians had retained some sort of connection with the Karelian population from the central part of Tver Oblast even after their arrival on the banks of Djorža River. This connection may have been in the form of exchange of Karelian peasant families among landowners from different areas. In any case, the total isolation of this language island from other Karelian communities might have begun much later than in the 17th century.

Recent historical evidence supports this assumption. Anna I. Savinova and Julia V. Stepanova from Tver State University have studied the previously unknown Karelian enclave in Mikulinskij Stan (*Микюлинский стан*)<sup>22</sup> of Tverskoy Uyezd and adjacent areas in the Staritsky and Rzhevsky Uyezds. Their historical demographic study is based on census data (*переписные книги*) from 1677/78 and 1710 (Savinova & Stepanova 2018). According to the data from 1677/78, in the territory of Mikulinskij Stan there were 36 settlements with Karelians who had recently moved there from the north. The southern part of this enclave includes villages along the Ržat' River which are very close to the Djorža Karelian settlements. For example, the village of Jagodino, whose Karelian inhabitants are mentioned in documents of 1677/78, is only 35–40 km north from Djorža area, and Salino, with a recorded Karelian population in 1710, is only 25 kilometers away (see Figure 2 in Savinova & Stepanova 2018). This Karelian enclave could have been the connecting link between Djorža Karelians and the Karelians of the central part of contemporary Tver Oblast. Savinova and Stepanova estimate the size of the enclave at the end of the 17th century at about 900 individuals. We do not know when this enclave's inhabitants stopped speaking Karelian, but considering the severe restrictions on peasant mobility in 18th-century Russia, the relatively peaceful history of the area in this period, and the observed speed of language extinction among Finnic groups in later periods, the language may have survived until the 19th century.

Whether the shift /a/ > /o/ had taken place in Karelian because of the above-mentioned tendency to mark the stressed vowel contrastively relative to the Russian source, or already in Russian due to hypercorrection by speakers of okanye dialects, is not relevant here. Both processes have the same outcome – Russian loans with non-etymological /o/ instead of /a/.

---

22. A “stan” is an old administrative-territorial unit, smaller than an uyezd.

word form	translation	Russian equivalents: constructed-dialectal (standard)	attested in
<i>bornji</i>	‘rams (part.)’	* <i>борáнов (барáнов)</i>	Õispuu 1990: 84; 1995: 30; Punžina 2001: 114
<i>boraškzet</i>	‘little rams’	* <i>борáшки (барáшки)</i>	Punžina 2001: 27
<i>fomiľ</i>	‘family; last name’	* <i>фомíлия (фамíлия)</i>	Õispuu 1995: 36
<i>kostřúľkat</i>	‘saucepans’	* <i>кострjúли (кастрjúли)</i>	Punžina 2001: 83
<i>kormňih</i>	‘in/to the pocket’	<i>в *кормáне (в кармáне)</i>	Õispuu 1990:153; 1995: 59; Punžina 2001: 162
<i>obortoi</i> ( <i>ei ruat</i> )	‘(they didn’t perform) aborticide’	* <i>обóртоv (абóртоv)</i> ( <i>не делали</i> )	Punžina 2001: 113
<i>stokanzen</i>	‘small glass’	* <i>стокáнчик (стакáнчик)</i>	Punžina 2001: 148
<i>toreľk</i>	‘plate’	* <i>торéľка (тарéľка)</i>	Õispuu 1990: 153
<i>trombuijah</i>	‘(they) tamp’	* <i>тромбúют (трамбúют)</i>	Punžina 2001: 51

Table 3. Instantiations of the shift /a/ &gt;/o/ in Russian loans in Djorža Karelian

It thus seems that multiple factors have influenced the non-high vowel of unstressed syllables to appear as /o/ instead of /a/. Such factors include the substitution of Russian /o/ as Finnic /o/ in newer loanwords, as well as the change of /a/ to /o/ taking place either in Russian, or in Karelian in the context of loanword adaptation. The loans featuring non-etymological /o/ have probably had a corroborative effect on the retention of the etymological /o/ in Russian loanwords. Conversely, these factors might also have had an impeding impact on the spread of akanye forms in Djorža Karelian vocabulary of Russian origin.

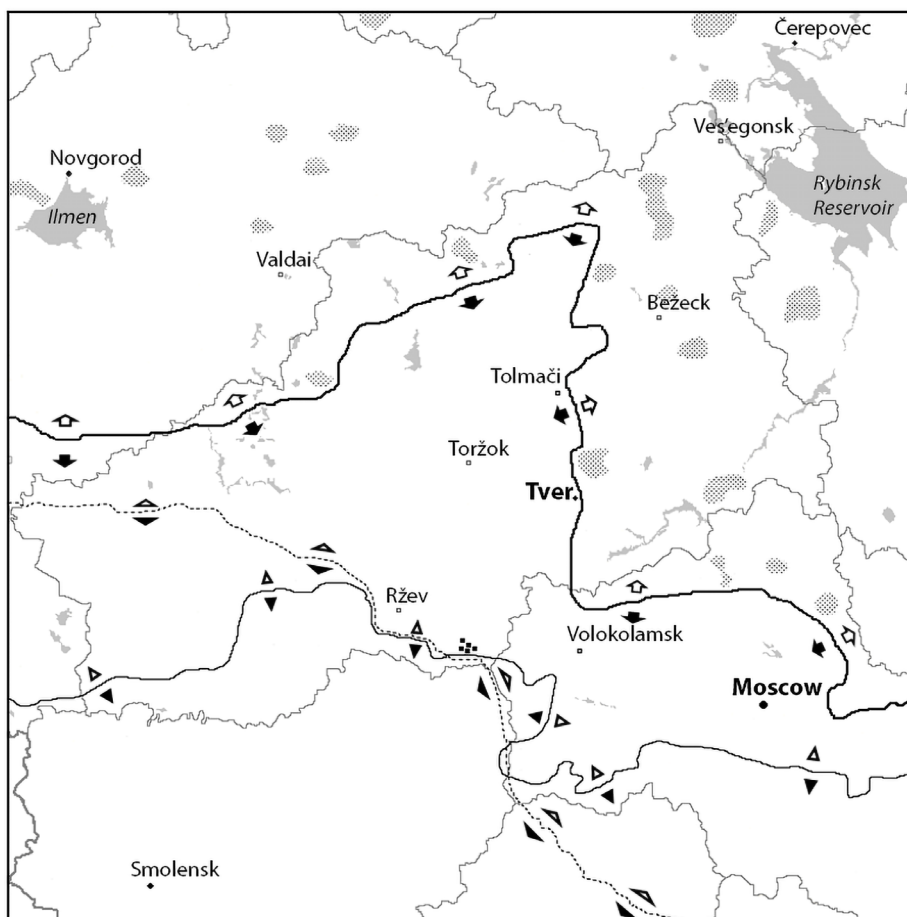
In this section, we excluded proper nouns occurring in the material from our analysis, because such nouns are not included in dictionaries, and thus cannot serve as a basis for comparison when studying the spread of akanye in Djorža Karelian; moreover, we had enough common nouns featuring akanye and okanye in the material to draw conclusions based on them. Suffice it to say that in Punžina’s and Õispuu’s texts integrated proper nouns show okanye more frequently than akanye.<sup>23</sup>

Finally, yet importantly, the linguistic background and the intuition of the transcriber may also have played a role. Both Punžina and Õispuu were familiar with other Karelian dialects and different standard versions of this language. The geographic

23. An example of akanye in a place name is *Smalenskan* ‘Smolensk (gen.)’ (Õispuu 1990: 171; cf. Rus. *Смоленск*). The usual form of the name of this city in Djorža Karelian is, however, *Smoleňč(a)* (Õispuu 1990: 97, 169) (cf. also *Smoleňčandorog* ‘the old Smolensk road’). An example of a personal name with akanye is *Maskliď* ‘Moskalëv (part.)’ (Õispuu 1990: 122; cf. Rus. *Москалëв*).

origins of these varieties are within the okanye area of Russian. This familiarity with other varieties of Karelian may have had an impact on choices made during transcription. It is interesting to see that in chunks in Russian in Punžina's and Öispuu's texts (i.e. in cases of code-switching) akanye prevails over okanye. Thus, in Russian word forms which do not satisfy the conditions mentioned in the beginning of this section, and thus represent code-switching or non-integrated transfers, akanye is much more common than okanye. The akanye form *paznakomiliš* (cf. Standard Russian *познакомились*) in (1) violates the first condition, as it is inflected for tense, person and number in Russian, while the akanye form *padkarmlivaju* (cf. Standard Russian *подкармливаю*) in (2) violates both conditions, as it contains Russian inflectional morphology (1SG marker) and is part of a chunk of Russian speech. It is plausible that Punžina and Öispuu have (consciously or unconsciously) marked the difference between integrated and non-integrated Russian material in their texts by reserving /o/ (which better corresponds to the adaptation patterns of Karelian) for integrated Russian loanwords, and /a/ for code-switches in the local akanye dialect of Russian.

- (1) *a šid\_ka i paznakomiliš müä häneŋken*  
 and then also get\_acquainted.PST.1PL(RUS) we.NOM he.COM  
 'And then we became acquainted (with him).' (Öispuu 1990: 180)
- (2) *ja jejo padkarmlivaju üäl*  
 I.NOM(RUS) she.ACC(RUS) feed\_up.PRS.1SG(RUS) night.ADE  
 'I feed her at night.' (Öispuu 1990: 178)



### Borders

- Approximate boundary between okanye and akanye
- Approximate boundary between [g]- and [ɣ]/[ɦ]-exponence areas
- ..... Approximate boundary between [v]- and [w]/[ɰ]-exponence areas
- Oblast border
- State border

### Areas

- 🏠 Points toward an area with predominance of okanye
- ⬇️ Points toward an area with predominance of akanye
- ▲ Points toward an area with predominance of [g]
- ▼ Points toward an area with predominance of [ɣ] or [ɦ] instead of [g]
- ⬆️ Points toward an area with predominance of [v]
- ⬇️ Points toward an area with predominance of [w] instead of [v]
- ◼️ In the pretonic syllable, after a non-palatalized consonant /a/ is represented as /o/
  - Dzorža Karelian village: Semënovskoe, Novoe, Aleksandrovka (Aleksandrovskoe), Ivanovskoe, Vasil'evskoe.

Map 1. Dzorža Karelian and phonological variation in Russian dialects<sup>1</sup>

1. The map is based on maps 1, 9, 17, 33, 35, 36, 44, 56, 58, 89 of DARJa I.

## 3.2. Consonants

### 3.2.1. [ɣ]/[ɦ] corresponding to [g]

The phonological manifestation of the Russian voiced stop [g] as the voiced velar fricative [ɣ] or the voiced glottal fricative [ɦ]<sup>24</sup> is a distinctive feature of the Southern Russian dialects (see DARJa I: map 44, DARJa I/Vs: 145–147),<sup>25</sup> e.g. *хóпoд* (Standard Russian *зóпoд*) ‘town; city’, *дpyx* (Standard Russian *дpуз*) ‘friend’, *дpýгa* (Standard Russian *дpýзa*) ‘friend (gen., acc.)’, *γpозá* (Standard Russian *зpозá*) ‘thunderstorm’ (see also Stroganova 1973: 78). As can be seen from Map 1, Djorža Karelian villages are at the northern margins of the [ɣ]/[ɦ] area, or rather, just outside it. A slightly different case is the lenition of [g] to [ɣ], or even its loss, before *d* in the proadverbs *кoгдá* ‘when’, *тoгдá* ‘then’, *вceгдá* ‘always’, *иногда* ‘sometimes’, cf. *кoγдá/кoдá*, *тoγдá/тoдá*, *вceγдá/вceдá*, *иγaγдá/иγaдá* (DARJa I/Vs: 192–193). In these words, the exponents [ɣ]/∅ are attested somewhat further to the north, possibly also covering the valley of the upper Djorža River, although the scale of the respective map in DARJa I (map 89) is too small to make a confident judgment about this.

In Djorža Karelian the phoneme /g/ occurs in various positions, e.g. *agan* ‘chaff’, *korgi* ‘high’, *kaglan* ‘neck (gen.)’ (Õispuu 1995: 27, 50, 58). The available evidence suggests that, although Djorža Karelian might previously have been in contact with varieties of Russian exhibiting [ɣ]/[ɦ] instead of [g], it is now definitely outside the area where these Russian varieties are or were spoken. The substitution [g] > [ɣ]/[ɦ] occurs in the Djorža Karelian data, but most of the occurrences do not qualify as valid evidence for influence from Southern Russian.<sup>26</sup> The collected examples can be divided into three sets, as shown in Table 4. As can be seen from the table, ∅ is not attested in the data as exponent of [g].

24. In Russian dialectology the voiced velar fricative [ɣ] is usually written <ɣ> and the voiced glottal fricative [ɦ] as <x>.

25. DARJa (I/Vs: 145-146) writes [h], but this is probably [ɦ] (see Kiparsky 1963: 126).

26. For ease of reference, we will henceforth speak about a “[g] > [ɣ]/[ɦ] substitution”, although this does not necessarily correspond to the historical path of dialect change (cf. Kiparsky 1963: 126–129). Technically it is more appropriate to speak of the manifestation of Standard Russian [g] as [ɣ]/[ɦ] in certain dialects.

Words with religious (Russian Orthodox) background, and canonic pronunciation			
word form	translation	Russian equivalents	attested in
<i>blaharoid</i>	‘noble’	<i>благородный</i>	Õispuu 1990: 161
<i>blahoslavljaj</i>	‘bless’	<i>благословить</i>	Õispuu 1990: 91
<i>boh</i>	‘God’	<i>Бог</i>	Õispuu 1990: 174
<i>bohatt</i>	‘rich’	<i>богатый</i>	Punžina 2001: 142; Õispuu 1990: 30
<i>bohročč</i>	‘Virgin Mary’	<i>Богородица</i>	Punžina 2001: 94
<i>hospod, xospodi</i>	‘Good Lord!’	<i>Господи!</i>	Punžina 2001: 112, Õispuu 1990: 34
Personal names			
<i>Heruškankod’, Herankod’</i>	‘Geruškin’s house’, ‘Gerasim’s house’	<i>Герушкин дом,</i> <i>дом Герасима</i>	KehKuz 2019 KehKuz 2019
<i>Joho’eišš</i>	‘in Egor’evo (village)’	<i>в Егорове</i>	Punžina 2001: 67
Other			
<i>dohtar’</i>	‘doctor, physician’	<i>дóктор</i>	Punžina 2001: 146; Õispuu 1995: 27
<i>trahtaraḷ, traxtaran</i>	‘with the tractor’, ‘of the tractor’	<i>на тра́кторе,</i> <i>тра́ктора</i>	Õispuu 1990: 122
<i>hasudarstval</i>	‘for the state’	<i>для госуда́рства</i>	Punžina 2001: 20
<i>inahda</i>	‘sometimes’	<i>иногда́</i>	KehKuz 2019
<i>všehda</i>	‘always’	<i>всегда́</i>	Punžina 2001: 70
<i>(keḷḷ eij_ow) ohurču</i>	‘(who doesn’t have) cucumbers’	<i>(у кого нет) огу́рчиков</i>	Punžina 2001: 84

Table 4. [g] manifested as [ɣ]/[ħ] in Russian loanwords in Djorža Karelian

The first group in the table comprises words of ecclesiastic (Russian Church Slavonic) origin, which in public worship were always pronounced with the voiced velar fricative [ɣ], e.g. *государь* ‘sovereign, majesty’ was pronounced *γосудáрь*. These liturgical borrowings cannot serve as evidence for contact between Djorža Karelian and Southern Russian dialects, because they feature [ɣ] all across the Russian dialect area (DARJa I/Vs: 146), and they also manifest regular *h* forms in those Karelian dialects that have been exclusively in contact with Northern Russian, e.g. Olonets Karelian

*blahoslovie* ‘bless’ (Kalima 1952: 65), Karelian Proper *pohorotitsa* ‘Virgin Mary’ (KKV) and Karelian Proper, Olonets Karelian *hospoti* ‘God, Lord’ (KKV).<sup>27</sup>

Nor can the second group serve as evidence for contact between Djorža Karelian and Russian dialects displaying the [ɣ]/[ɦ] exponence on Map 1, as [g] > [h] is a stable adaptation pattern of Russian personal names in Finnic, irrespective of the Russian source dialect (Kalima 1952: 65), cf. the Karelian names *Bohti/Pohta* (< *Богдан*), *Đohor(u)/Johra* (< *Егор*), *Hermo/Hemmo* (< *Герман*), *Huurei* (< *Гурюй*) (Kuzmin 2016: 68).

The third group (“other”) consists of common nouns, which have no relation to Orthodox Church history. Here the Finnic adaptation models are ambiguous. On the one hand, the constricted Russian voiceless velar fricative is substituted with a plosive consonant in Finnic, e.g. *xodítʹ* ‘walk’ > Estonian *kodima* (Must 2000: 503) and *xorovód* ‘round dance’ > Djorža Karelian *karvod* (Table II in the Appendix). On the other hand, the Russian voiced plosive [g] has been substituted by [h] in some loanwords; cf. Karelian Proper *huža* ‘thick rope; snake’ (< *зуж*), Olonets Karelian *nahaikku* ‘whip’ (< *нагайка*), Olonets Karelian/Lude *briha* ~ Veps *priha* ‘young man; boy’ (< *пригójжий*) (Kalima 1952: 65). Kalima ascribes this adaptation model to the Russian dialects where Standard Russian [g] is pronounced as [ɣ], although his examples are from Finnic dialects which have never been under influence of Russian dialects from the [g] > [ɣ]/[ɦ] substitution area. In order to ascertain whether the word forms in the “other” group can be associated with the Southern Russian [ɣ]/[ɦ] area, or are an outcome of a general Karelian adaptation pattern which is not related to Southern Russian, we inspected these words in the online Karelian dictionary (KKV) and the dictionary of Tver Karelian (SKJa). The first two words *dohta* and *trahtar* show forms in *h*, occurring in Karelian dialects spoken far away from the Russian [g] > [ɣ]/[ɦ] dialects. The word *hasudarstv* ‘state’ does not occur in the dictionaries, but given its meaning it must be a loan from standard official Russian, and therefore it cannot serve as evidence for local dialect contact.<sup>28</sup>

The remaining word forms, on the other hand, are valid evidence for contact with Russian dialects with [ɣ]/[ɦ] exponence. All of them are hapax legomena, occurring only once in the material. The forms *inahda* ‘sometimes’ and *všehda* ‘always’ (or any other phonetic variants of these lexemes) do not occur in the dictionaries, but

27. According to the authors of the Russian dialect atlas, the acoustic difference between the velar fricative [ɣ] and the glottal fricative [ɦ] is barely perceptible and therefore cannot be localized on the map (DARJa I/Vs: 145-147; DARJa I: map 44). The orthographical difference between *hospod* and *xospodi* (see Table 4) may derive from an actual difference heard by the transcribers of Öispuu’s and Punžina’s recordings, though the two forms may also be due to different transcription conventions followed by the transcribers. The difference between *traxtaran* and *trahtara*, both from Öispuu (1990: 122), a loan from dialectal [ˈtraxtər] ‘tractor’ (SRNG 45: 17b), could be explained by glottalization of [x] to [ɦ].

28. All general secretaries of the Central Committee of the Communist Party of the Soviet Union were from the Southern Russian dialect area. Given the role of the word for ‘state’ in the official Soviet narrative, it is not unlikely that the pronunciation of this word may have echoed the language of the highest leader of the state. Therefore, it would not be surprising if it was often publicly pronounced with [ɣ] in anlaut.

as can be seen from Table I in the Appendix, the plosive variant *inagda* occurs in Djorža Karelian material. The plosive reflexes of *ohurču* ‘cucumber’ occur both in the dictionaries (Karelian Proper *okurttsša* ~ *ogurttsša*, Olonets *ogurtsu*, Tver Karelian *ogurča*) and in Djorža material, e.g. *ogurčuw* ‘cucumber (part.)’ (Õispuu 1990: 176), *ogurčat* ‘cucumber (nom. pl.)’ (Punžina 2001: 83–84).

In principle, even one word form can serve as evidence for language contact. Ivanovskoe, for example, was originally a Russian village, situated amid Djorža Karelian villages. There being only three valid examples of the phenomenon would suggest, however, that the inhabitants of this village did not speak a Russian dialect belonging to the [g] > [ɣ]/[ɦ] substitution area. Three examples in such a body of recordings does not point to a stable contact situation. We can only assume sporadic contact, for example, via influx of speakers (through marriage etc.) from villages within the Southern Russian [ɣ]/[ɦ] area. As can be seen on Map 1 and on maps 44 and 89 of DARJa I, such settlements are not more than 15–20 km away.

### 3.2.2. [w] corresponding to [v]

The second major watershed on the Russian dialect map concerning consonants is the manifestation of the Northern, most of Central, and Standard Russian labiodental fricative [v]/[f] as the labiovelar approximant [w] or the (semi)vowel [ʉ] (Cyrillic: [ý]) in Southern Russian, and specifically in its western dialects.<sup>29</sup> The rough isogloss depicting the geographic distribution of the phenomenon can be seen on Map 1 above. A more precise picture of the situation is given on maps 56 and 58 of DARJa I. Map 56 presents the distribution of the sounds representing non-palatalized [v]/[f] before a consonant in inlaut (cf. *npáвда* and *npáwða* ‘truth’, *давнó* and *давнó* ‘long ago’, *оф́ца* and *oẃца* ‘sheep’), while map 58 presents the distribution of the sounds representing non-palatalized [v]/[f] at the end of the word (cf. *домóв/домóф* and *домów* ‘of the houses’, *пyкáв/пyкáф* and *пyкáw* ‘sleeve’) (see also DARJa I/Vs: 157–158; Orlova 1970: 36; Stroganova 1973: 83).

Table III in the Appendix lists the Russian loans in Djorža Karelian in which this phenomenon is attested. Just like in the previous section, we will conventionally speak about [v]/[f] > [w] substitution. The items in this table are classified into two main groups, according to whether the phenomenon occurs in the inlaut or in the auslaut of the word. Each group is further divided into common nouns (whose equivalents can be checked in the dictionaries) and names (whose equivalents do not occur in dictionaries).

The [v]/[f] > [w] substitution is amply attested in Djorža Karelian data, but just like the other phonological phenomena it can be explained in terms of internal development. As an adaption pattern this substitution is attested also in Karelian dialects

29. Djorža Karelian text transcriptions do not distinguish between [w] and [ʉ]. Therefore, we will treat these sound values together, as one sound value in opposition to [v]. In generative phonology much has been written on Russian [v] being underlyingly /w/ (cf. e.g. Hayes 1984), but these studies pay little to no attention to Russian dialects.



that have not been in contact with Russian [v]/[f] > [w] dialects. Examples include the Olonets Karelian *oprawdaj-* ‘justify’ (cf. *оправд́ать*), *pozdrawlaj-* ‘congratulate’ (cf. *поздравля́ть*), *predstawlaj-* ‘present, introduce’ (cf. *представля́ть*) and Valdai Karelian *rowńaj-* ‘even out’ (cf. *ровня́ть*) (Pugh 1999: 62). The phonotactic conditions of this adaptation model are similar to those of its Russian dialectal correlate: the weakening of [v] into an approximant or vowel takes place before consonants, whereas before vowels the fricative is retained, cf. the borrowings from the respective perfective verbs in Olonets Karelian: *pozdravie-* ‘congratulate’ (cf. *поздрав́уть*), *prestoavie-* ‘present, introduce’ (cf. *предста́вуть*), etc. (Pugh 1992: 62). Kalima writes that the Russian intervocalic [v] may occur before a consonant due to syncope, and it is then rendered as a part of rising diphthong, whose second component is [ʉ], see Karelian Proper *lauttša* (< Rus. *lávica* ‘bench next to the wall’) and *stauttša* (< Rus. *stávec* ‘small wooden or pottery cup’) (Kalima 1952: 70). This diphthongization is attested also in words in which [v] is followed by a consonant already in the Russian source, e.g. Finnish *kousa/kousikka* ‘scoop’ < Rus. *kovš*, *riuna/kriuna* ‘currency unit of 10 kopeks value’ < Rus. *grívna* (Kalima 1952: 70; see also Plöger 1973: 162–163). It affects also the voiceless labiodental fricative [f], e.g. Karelian Proper *zauhtrókka* ‘breakfast’ < Rus. dial. *závtrok*, Olonets Karelian *šliuhku* ‘cream’ < Rus. *slívki* (Kalima 1952: 71).

Moreover, the [v] > [w] substitution affects also inherited Finnic vocabulary in Djorža Karelian. As a consequence of syncope and apocope, [v] ends up in pre-consonantal or in word-final position and changes to [w], e.g. *šuwčči* ‘she loved’ (Punžina 2001: 160) (cf. Karelian Proper *šuvattši* [KKV]), *käwlin* ‘I went’ (KehKuz 2019) (cf. Karelian Proper *kävelin* [KKV]), *šaw* ‘smoke’, ‘clay’ (Õispuu 1995: 107–108) (cf. Karelian Proper *šavu* ‘smoke’, *šavi* ‘clay’ [KKV]), *kiw* ‘stone’ (Õispuu 1995: 56) (cf. Karelian Proper *kivi* ‘stone’ [KKV]), *kiwruč* ‘Stonecreek (toponym)’ (KehKuz 2019). In word-final position, especially in present tense third person singular forms of the verb, the phenomenon is not restricted to Djorža Karelian but is attested in several Karelian dialects, cf. Ves’egonsk (northern Tver Karelian) *rubiew* ‘s/he begins’ (Novak 2019: 233), Valdai Karelian *pagizow* ‘s/he speaks’ (Zaikov 2000: 50), Olonets Karelian *pidäw* (Zaikov 2000: 50) ‘s/he must’. The approximant in this inflectional form is a result of lenition, followed by *i*-apocope and then approximantization: \**pi* > *vi* > *v* > *w* (Zaikov 2000: 50–51; Novak 2019: 233).

Finally, in inherited Karelian vocabulary, [w] is not always a descendant of [v]. Another source of [w] at the end of the syllable are long high rounded vowels or diphthongs ending in *-u* or *-y*, which then change into an approximant. Again, this development is not restricted to Djorža Karelian, cf. Ves’egonsk *šiwla* ‘you (adessive/allative)’ (Novak 2019: 232–233) (cf. Karelian Proper *šiula* [KKV]). However, it is most typical for Djorža Karelian, where it affects also falling diphthongs, e.g. *ei šuw* ‘(s/he) does not get’ (elsewhere in Tver Karelian *ei šua*), *rebuw* ‘fox (part.)’ (elsewhere in Tver Karelian *rebuo*) (Novak 2019: 234).

Can we differentiate among the internal forces at play in the emergence and spread of this phenomenon and the impact of the southwestern Russian [v]/[f] > [w]

substitution? For the common nouns in Table III, this seems almost impossible, but the proper nouns provide unequivocal evidence for the influence of Russian [v]/[f] > [w] dialects. To our knowledge, no other Karelian variety has generalized [w] as a substitute for [v]/[f] in personal and place names ending in *в, во, вск* to the extent Djorža Karelian has; see the forms *ivnowskoi-, oľeksandrowskoi- moskowskoi-, šemnowskoi-, vašilewskoi-, Čižow, Posnikow, Rozow* in Table III of the Appendix. In the available texts, the cases of pronunciation with [w] outnumber the cases of retention of [v]/[f]. Table 5 shows the number of occurrences of oeconym forms in Öispuu (1990) and Punžina (2001) transcribed with *wsk* and the occurrences transcribed with *vsk* or *fsk*.<sup>30</sup>

	<i>wsk</i>	<i>vsk/fsk</i>
Öispuu 1990	25	11
Punžina 2001	14	6
Σ	39	17

Table 5. Number of occurrences of oeconyms in *wsk* and in *vsk/fsk*

The weakening of [v]/[f] into an approximant in this phonotactic environment cannot be a consequence of (internal Karelian) syncope, because the fricative is followed by a consonant already in the Russian source.

On the other hand, in our data from 2019 there are more tokens of *vsk/fsk* than of *wsk*. This might be due to the fact that native Karelians already constitute a small minority in their villages and hear the Standard Russian pronunciation daily.<sup>31</sup> At the same time, [w] could be sporadically observed in other syllables of the word. In the recordings from 2019, informants produce the approximant also in the first syllable, see the forms *Iwnuskoih* and *iwnanpäiv* in Table III in the Appendix. Such forms are not attested in Öispuu (1990) and Punžina (2001). In 2019, we could occasionally hear the approximant also between vowels, see the reflexes *Nouwois, Nouwoi(h),* and *nouwoizet* in Table III, which constitute an entirely new phonotactic environment for it (cf. Novak et al. 2019: 73). Given the low token frequency of the forms with [w] as a substitute of [v], such exceptional occurrences cannot be regarded as a sign that the phenomenon is spreading out of its original environment. More likely, they are signs of hesitation in pronunciation conventions, which indicate that the language is going out of use.

30. The only Karelian village name transcribed in the texts with *vsk/fsk* more often than with *wsk* is *Aleksandrovskoe* (cf. *Oľeksandrowskoi* in Punžina 2001: 105).

31. This is why we did not include frequencies from KehKuz (2019) in Table 5. Given the changed conditions for selecting the shape of proper nouns among the last generation of speakers, who practically do not communicate in Karelian, this would have distorted the insight gained from Öispuu (1990) and Punžina (2001).

Little can be said about the forms of the common nouns in Table III. Perusal of the two dictionaries, KKV and SKJa, did not help. Of 20 items in the table, 12 display reflexes with <v> or <u> instead of <v>/<f> in Karelian varieties that have never been in contact with Russian dialects from the [v]/[f] > [w] substitution area.<sup>32</sup> These forms are probably an outcome of the above-mentioned adaptation patterns for Russian loans. Six of the remaining eight occur in the dictionary material but only with <v>/<f>: *provotie* ~ *provod'ie* 'lead; put through' (Olonets Karelian), *owfčina* 'sheepskin' (Tver Karelian), *savarie* ~ *zavarie* 'boil' (Karelian Proper, Olonets Karelian), *tovarissa* 'friend, comrade' (Karelian Proper, Olonets, Tver Karelian), *borova* ~ *borva* 'castrated hog' (Valdai Karelian, Tver Karelian) and *trava* 'grass' (Karelian Proper, Valdai, Tver Karelian). The remaining two – *awgust* 'August' and *žawronk* 'skylark' – do not occur in the dictionaries at all. The absence of [w] reflexes of these eight words outside Djorža Karelian does not necessarily mean that the presence of such reflexes in the latter is due to the influence of the Russian [v]/[f] > [w] dialects. Three of these examples show syncope, and one apocope, taking place before the change of [v] into [w] in Djorža Karelian. Most likely is multiple causation involving language contact, an existing adaptation pattern of Russian loans, and an internal change due to syncope and apocope.

The explanatory chapter of map 56 of DARJa I specifies which are the most frequent words for each phonotactic environment in which the variation between [v]/[f] and [w] is attested in the Russian dialects (DARJa I/Vs: 157–158). It cannot be a coincidence that *równo* 'exactly' is the most frequent word in which this variation occurs before a sonorant consonant and *npáwda* 'truth' the most frequent word in which it occurs before a voiced obstruent. Both stems occur also in our material (see *prawd* and *śorowno* in Table III), and it is probable that the transfer of [w] reflexes of such very frequent words has had a supporting effect on the internal phonological processes.

#### 4. Syntax: disjunctive coordination in Djorža Karelian

We will compare now phonology with syntax, a level of linguistic structure also noticeably liable to contact-induced change. Syntactic structure is in a many-to-many relationship with meaning, and accordingly, the syntax–semantics interface provides a greater diversity of synchronic variation and diachronic paths of change.

32. These are *prauta* ~ *prawda* 'truth' (Karelian Proper, Olonets, Tihvin, Tver Karelian), *uprauláššoi* 'manager' (Olonets Karelian), *palouniekka* 'naughty child' (Olonets Karelian), *rouno* ~ *rowno* 'exactly' (Karelian Proper, Olonets, Tver Karelian), *soukka* 'scoop' (Olonets Karelian), *lawčča* (Karelian Proper, Olonets, Tihvin, Valdai, Tver Karelian), *vouse* ~ *vowšo* 'quite' (Karelian Proper, Olonets, Tver Karelian), *časownia* 'chapel' (Karelian Proper, Olonets, Tver Karelian), *jevrei* 'Jew' (Karelian Proper, Olonets Karelian), *leuša* 'left-handed' (Tver Karelian), and *potkou* 'horseshoe' (Olonets Karelian). The word *morkku* 'carrot' (Karelian Proper, Olonets, Tver Karelian) may also belong here, although the -u at the end of it might be a Karelian stem vowel, and not a descendant of [v].

We will here briefly discuss the distribution of the disjunctive conjunction ‘or’ in our material. Djorža Karelian has borrowed two conjunctions with this function from Russian: *il(i)* and *al(i)*. The first comes from *únu* ‘or’, which is the basic disjunctive conjunction in Standard Russian and in most of Northern Russian (Šapiro 1953: 77), while *ánu* ‘id.’ (also *алí, аль, áле, алé*) does not belong to the literary norm of Russian. This conjunction is widely used in the dialects, most typically in Southern Russian and the Central Russian dialects, but also in some dialects of Northern Russian (e.g. in Vologda, Kostroma, Arkhangelsk Oblasts, and in Zaonež’e) (Dolja 1961; Guseva 2014; see also the entry *ánu* in SRNG 1: 234–237). Table 6 presents the token frequencies of these forms in Õispuu (1990), in Punžina (2001), and in total.

	<i>il(i)</i>	<i>al(i)</i>
Õispuu 1990 (data from 1984–1988)	14	44
Punžina 2001 (data from 1967–1971)	62	36
Σ	76	80

Table 6. Number of occurrences of the disjunctive words *il(i)* and *al(i)* ‘or’

The disparity between the two text collections is remarkable: in Õispuu (1990) *al(i)* is three times more common than *il(i)*, whereas in Punžina (2001) the proportion is reversed, with *il(i)* being almost twice as frequent as *al(i)*. Given the relative chronology of the recordings, we expected to see the opposite distribution in the table; Punžina 2001 contains texts collected earlier than the texts in Õispuu 1990. We expected the standard (written and spoken) Russian form *únu* (Karelian *il(i)*) to increase over time in frequency, to the disfavor of dialectal *ánu* (Karelian *al(i)*), and not vice versa, as the distribution in the table suggests. The only explanation of this distribution could be strong idiolectal preferences. In any case, it is astonishing that Djorža Karelian has preserved and keeps in use the disjunctive conjunction *al(i)*, thus defying the leveling pressure of Standard Russian.<sup>33</sup>

Another interesting detail in Table 6 is the similar total frequency of the two items. If two function words are synonymous, one would not expect them to be equally frequent in the language, as this would be a violation of the economy principle. There must therefore be a division of functional labor between the items in the table.

Comparing the contexts in which these items are used in Djorža Karelian texts, we observe an extensive functional overlap. Both occur predominantly in the so-called ‘standard disjunction’ (or ‘simple alternative’) context, where the speaker simply presents alternative, not necessarily exclusive, possibilities, e.g. *Usually, I write or read until late* (Mauri 2007: 185). We can observe, however, one important difference.

33. As already noted, the Djorža Karelian villages are only 170 km away from Moscow. Even in the 1970s and 1980s many, if not most of the local Karelians of working age were making a living in Moscow Oblast, and, conversely, inhabitants of Moscow were spending summers in their dachas in Djorža villages.

Namely, *al'(i)* occurs in direct or embedded polar questions presenting opposite alternatives ‘(X asks/knows/remembers/sees/doubts, whether) *p* or not-*p*?’ while *il'(i)* does not seem to be licensed in this context: *al'(i)* displays nine occurrences in this context, whereas *il'(i)* does not display such uses at all. Example (3) demonstrates *al'(i)* in a direct polar question, and example (4) its use in an indirect question-like complement clause presenting opposite alternatives.

- (3) *nu mid, aḱ, davoĭn olet al' ed,*  
 INTERJ what woman.NOM satisfied be.PRS.2SG or NEG.2SG  
*što šiwn ruattih?*  
 what you.ADE/ALL do.PST.3PL  
 ‘Now what, woman – are you satisfied or not with what they did for you?’  
 (Öispuu 1990: 149)

- (4) *pravd al' ei, ken tiäd'äv*  
 truth.NOM or not who know.PRS.3SG  
 ‘True or not, who knows?’ (Öispuu 1990: 87)

The distinction between ‘standard disjunction’ (‘simple alternative’) and ‘interrogative disjunction’ (exemplified by [3] and [4], also known as ‘choice-aimed alternative’) is probably the most salient contrast in disjunctive constructions of the languages of the world (Haspelmath 2007; Mauri 2007). According to Mauri, nine out of the 37 languages in her European sample encode this distinction by using different disjunctive markers. Cognate languages behave differently. For example, Estonian and Standard Russian do not encode the distinction, using one general marker for both, whereas Finnish, Belarusian and Ukrainian encode it, using one marker for simple alternative (Fi. *tai* ‘or’, Bel. *ui* ‘id.’, Ukr. *чи* ‘id.’) and another for choice-aimed alternative relation (Fi. *vai* ‘or’, Bel. *або* ‘id.’, Ukr. *або* ‘id.’).

What about Karelian and Russian dialects? The examples of the use of disjunctive markers presented in KKV and SKJa indicate that Karelian Proper encodes the contrast with the inherited conjunctions *tahi* and *vai(n)* (cf. the Finnish *tai* and *vai*). The first marks standard disjunction (e.g. *anna šie Antti šuuri hauki tahi kakši pienempäistä!* ‘Give me, Antti, a big pike, or two smaller [ones]!’ KKV), the second almost exclusively interrogative disjunction (e.g. *hyvä vain paha?* ‘Good or bad?’ KKV). The two dictionaries do not provide enough information for us to judge whether other Karelian dialects also encode this distinction. The evidence about the distribution of the Russian loans *al'i* and *il'i* outside Djorža Karelian is also scarce. The dictionaries present examples of *al'i* only from Tver and Tihvin Karelian, which is not surprising, as these varieties are surrounded by Central Russian dialects, where *ánu* is widely used. The conjunction *il'i*, on the other hand, is supplied in the

dictionary material only with examples from the dialects spoken in the Republic of Karelia (Karelian Proper and Olonets).<sup>34</sup>

Turning now to Russian, we do not know whether and which dialects of this language mark the distinction between standard and interrogative disjunction (i.e. between simple and choice-aimed alternative). Syntax is the least-studied level of linguistic structure in the Russian dialects. For example, DARJa does not contain maps on the distribution of syntactic phenomena. However, our observations on the Djorža Karelian syntax–semantics interface provide clues to the areal variation in Russian. If we are right that *il(i)* is blocked in the choice-aimed alternative context, Djorža Karelian, just like its relatives Karelian Proper and Finnish, would count as a variety distinguishing between simple and choice-aimed alternative relation, thus differing from Standard Russian but aligning with Belarusian and Ukrainian. Considering that the latter are closely related to Southern Russian and to certain Central Russian varieties, it seems probable that some Southern/Central Russian varieties also encode the distinction. In this case, the contrast in Djorža Karelian would mirror the disjunctive syntax of such a local variety. In particular, we would be dealing either with a contact-induced retention of an inherited grammatical distinction (shared with Karelian Proper and Finnish),<sup>35</sup> but replaced with the Russian loans *al(i)* vs. *il(i)*, or with a genuine grammatical borrowing, where both form (matter) and function (pattern) are replicated from dialectal Russian to Djorža Karelian.

In order to verify these assumptions we need to find out a) whether the conjunctions *ánu* and *únu* actually co-occur in the Russian variety spoken in Djorža area, and b) whether these conjunctions are semantically contrasted, or at least in privative opposition (the first being neutral, the second restricted to standard disjunction) as their Djorža Karelian equivalents. While we have enough evidence for a), we cannot verify b). In Õispuu's and Punžina's texts, both *il(i)* and *al(i)* occur in structures composed in accordance with the Russian grammar, i.e. in code-switches, which violate the criteria stated in the beginning of Section 3. *il(i)* occurs six times in such chunks of speech and *al(i)* three times in such chunks, see examples (5) and (6).<sup>36</sup> However, none of these nine examples express an interrogative disjunction (choice-aimed alternative). This is not surprising, as standard disjunction seems to be more common in communication than interrogative disjunction (cf. their relative frequency in Djorža Karelian, discussed above). Accordingly, we cannot exclude the possibility that *ánu* and/or *únu* also express interrogative disjunction in the local Russian variety.

34. There are two other disjunctive markers in Karelian dialects, *eli* and *libo*, but the dictionary data is too meager to see whether they build a semantic opposition in the same dialect.

35. We are grateful to the anonymous reviewer for pointing out this possibility to us.

36. The other occurrences of *il(i)* in such chunks can be found in Punžina (2001: 66, 72, 81, 83) and Õispuu (1990: 139), and the other occurrences of *al(i)* in Õispuu (1990: 13, 166).

- (5) *značit*                    *v*        *tr'iccet'*        *vas'mom*        *il'i*        *tr'iccet'*  
 mean.PRS.3SG        in        thirty        eighth.PRP        or        thirty  
*dev'jatom*        *gadu*  
 nineth.PRP        year.LOC  
 'That means in 1938 or 1939.' (Punžina 2001: 66)
- (6) *rūblikov*                    *šemsot*                    *al'*        *vošemsot*  
 ruble.DIM.PL.GEN        seven.hundred        or        eight.hundred  
 'Around seven or eight hundred rubles.' (Õispuu 1990: 123)

Examples (5) and (6) illustrate how the inhabitants of the Djorža area used to express disjunctive coordination in Russian, at the time when Punžina and Õispuu collected their material. But while we can be confident that both conjunction forms occur in the local Russian variety, we cannot say whether and how they differ semantically in it. The mere fact of their co-occurrence suggests that they are not entirely synonymous, but partly complementary, i.e. they are used in different contexts. Yet, this evidence is circumstantial at best.

Recapitulating the facts about Djorža Karelian, we observed that it has borrowed the two disjunctive markers from the local Russian dialect, but we could not determine whether this transfer of material was accompanied by a transfer of semantic pattern (the distinction between simple and choice-aimed alternative). At any rate, the language contact on the banks of Djorža River has resulted in a very similar, if not identical marking of disjunctive coordination in Karelian and Russian.

## 5. Conclusions

The distribution of phonological features discussed in this study corroborates the geographical facts shown on Map 1. Djorža Karelian is within the Russian dialect area of akanye, as proven by the akanye loans in Tables I and II in the Appendix, the meanings of which are related to traditional domestic livelihoods and which must have been borrowed from the adjacent dialects and not from common spoken Russian. As for consonants, Djorža Karelian seems to be just outside the [g] > [ɣ]/[ħ] area, although the available evidence points to sporadic contacts with [ɣ]/[ħ] subdialects of Southern Russian. The third phonological feature – the occurrence of the labiovelar approximant [w] or the (semi)vowel [ɯ] instead of the fricative [v]/[f] – provides inconclusive evidence for the position of Djorža Karelian in relation to this East Slavic dialect isogloss. The frequent occurrence of the phenomenon in proper nouns of Russian origin points, however, at direct contact with the [w] area of Southern Russian.

Crucially, in all three cases, the evidence for contact on the spot is skewed by Karelian (or even Finnic) loanword-adaptation patterns and other internal phonological processes (hypercharacterization, syncope, apocope). Phonology does not seem to be the best diagnostic for dialect contact because of the limited phoneme inventory

of the contact languages. Finnic and East Slavic do not have particularly rich sound systems, and only some of their vowels and consonants manifest dialect variation. The chances therefore that an internally motivated sound change is echoed by a contact-induced change are relatively high. This, in turn, causes difficulties in discriminating between the outcomes of the two in specific phonotactic contexts.

Unlike phonology, the syntax–semantics interface allows us to monitor and compare two variables – matter and pattern replication (among contact varieties) – and to identify the ultimate source of a linguistic change with greater precision. However, more variables requires more information, and, respectively, more basic research. Unfortunately, syntax is the least-studied level of linguistic structure, both in Russian and Eastern Finnic dialects, which leaves us presently with too many unknowns.

In our brief investigation of disjunctive structures, we observed that Djorža Karelian has borrowed two disjunctive conjunctions from the local Russian variety. We also presented evidence that these conjunctions have been used to mark the distinction between simple and choice-aimed alternative relation. The question we could not answer is whether the pattern of marking this distinction in Djorža Karelian is replicated from the local Russian or is an inherited feature. At the same time, our excursion into dialect syntax demonstrated how important the contact languages of Russian are for Russian dialectology. The co-occurrence of the disjunctive markers *и/и* and *а/и* in the local Russian dialect and the possible semantic motivation for this co-occurrence are insights we gained exclusively by studying non-Slavic dialect material.

Syntactic structure thus provides a fertile soil for joint research by Finnic and Russian dialectologists and contact linguists. Ideally, the identification of historical contacts between dialects of non-cognate languages could benefit from the combination of evidence from different levels of linguistic structure, and from cooperation with other disciplines, especially with historical demography.

## Acknowledgments

Deutsche Forschungsgemeinschaft (research fellowship for Petar Kehayov, 2017–2020, Reference No. KE 2239/1-1, at the Leibniz Institute for East and Southeast European Studies, Regensburg), Aleksei A. Blandov (Saint Petersburg), Markus Juutinen (University of Oulu), Jaan Õispuu (Tallinn), Helen Plado (University of Tartu), Timo Rantakaulio (University of Helsinki), Aleksandra V. Ter-Avanesova (V. V. Vinogradov Russian Language Institute, Russian Academy of Sciences, Moscow).



## Abbreviations

ACC	accusative case	NOM	nominative case
ADE	adessive case	ORus.	Old Russian
ALL	allative case	PART	partitive case
Bel.	Belarusian	PL	plural
COM	comitative case	PRP	prepositional case
DIM	diminutive suffix	PRS	present tense
Fi.	Finnish	PST	past tense
GEN	genitive case	Rus./RUS	Russian
INTERJ	interjection	SG	singular
LOC	locative case	Ukr.	Ukrainian
NEG	negation		

## References

- Avanesov 1974 = Аванесов, Р. И. 1974: *Русская литературная и диалектная фонетика*. Москва: Просвещение.
- Birnbaum, Henrik 1970: Zur Problematik der zeitlichen Abgrenzung des Urslavischen. – *Zeitschrift für Slavische Philologie* 35(1): 1–62.
- Blokland, Rogier 2009: *The Russian loanwords in literary Estonian*. Veröffentlichungen der Societas Uralo-Altaica 78. Wiesbaden: Harrassowitz.
- DAKJa = Sarvas, Leena (ed.) 1997: Д. В. Бубрих, А. А. Беляков, А. В. Пунжина. *Диалектологический атлас карельского языка*. / D. V. Bubrih, A. A. Beljakov, A. V. Punžina. *Karjalan kielen murrekartasto*. Helsinki: Suomalais-Ugrilainen Seura.
- DARJa I = Аванесов, Р. И. & Бромлей, С. В. (eds.) 1986: *Диалектологический атлас русского языка (Центр Европейской части СССР)*. Выпуск I: Фонетика. Москва: Наука.
- DARJa I/Vs = Аванесов, Р. И. & Бромлей, С. В. (eds.) 1986: *Диалектологический атлас русского языка (Центр Европейской части СССР)*. Выпуск I: Вступительные статьи, справочные материалы, фонетика. Москва: Наука.
- Doĭja 1961 = Доля, Т. Г. 1961: Употребление сочинительных союзов в заонежском говоре. – *Ученые записки Карельского педагогического института XII*. Петрозаводск. 130–142.
- Guseva 2014 = Гусева, Е. Р. 2014: Союзы с *l*- и *n*-партикулами в севернорусских говорах (инициаль *a*). – *Вестник Костромского Государственного Университета имени Н. А. Некрасова* 6: 186–192.
- Haspelmath, Martin 2007: Coordination. – Timothy Shopen (ed.), *Language typology and syntactic description. Vol. II: Complex constructions*. Cambridge: Cambridge University Press. 1–51.
- Hayes, Bruce 1984: The phonetics and phonology of Russian voicing assimilation. – Mark Aronoff & Richard T. Oehrle (eds.), *Language sound structure: Studies in phonology presented to Morris Halle by his teacher and students*. Cambridge, MA: MIT Press. 318–328.
- Kalima, Jalo 1952: *Slaavilaisperäinen sanastomme*. Suomalaisen Kirjallisuuden Seuran Toimituksia 243. Helsinki: Suomalaisen Kirjallisuuden Seura.

- Kallio, Petri 2006: On the earliest Slavic loanwords in Finnic. – Juhani Nuorluoto (ed.), *The Slavicization of the Russian North*. Slavica Helsingiensia 27. Helsinki: University of Helsinki, Department of Slavic and Baltic Languages and Literatures. 154–166.
- KehKuz 2019 = Kehayov, P. & Kuzmin, D. V. 2019: *Djorža Karelian audio material from 2019*. University of Tartu Archives of Estonian Dialects and Kindred Languages.
- Kiparsky, Valentin 1963: *Russische historische Grammatik. Band I: Die Entwicklung des Lautsystems*. Heidelberg: Carl Winter.
- KKV = Torikka, Marja (ed.) 2009: *Karjalan kielen verkkosanakirja*. Helsinki. <<http://kaino.kotus.fi/kks/>>
- Knjazev 2001 = Князев, С. В. 2001: К истории формирования некоторых типов аканья и яканья в русском языке. – *Вопросы русского языкознания* XI: 8–42.
- Korablëv et al. 2001 = Кораблëв, Н. А. & Макуров, В. Г. & Савватеев, Ю. А. & Шумилов, М. И. (eds.) 2001: *История Карелии с древнейших времен до наших дней*. Петрозаводск: Периодика.
- Kuzmin 2016 = Кузьмин, Д. В. 2016: Христианские имена карелов. – *Вопросы ономастики* 13(2): 56–86.
- Макаров 1963 = Макаров, Г. Н. 1963: *Образцы карельской речи: Калининские говоры*. Москва – Ленинград: Изд-во Академии наук СССР.
- Mauri, Caterina 2007: Conjunctive, disjunctive and adversative constructions in Europe: Some areal considerations. – Paolo Ramat & Elisa Roma (eds.), *Europe and the Mediterranean as linguistic areas*. Studies in Language Companion Series 88. Amsterdam – Philadelphia: John Benjamins. 183–214.
- Mikkola, J. J. 1894: *Berührungen zwischen den westfinnischen und slavischen Sprachen. I: Slavische Lehnwörter in den westfinnischen Sprachen*. Mémoires de la Société Finno-Ougrienne VIII. Helsingfors.
- Must, Mari 2000: *Vene laensõnad eesti murretes*. Tallinn: Eesti Keele Instituut.
- NKK = Rjagoev, Vladimir & Jeskanen, Matti 1994: *Näytteitä karjalan kielestä. I: Karjalan Tasavallan ja Sisä-Venäjän karjalaismurteet*. Joensuu: Joensuun yliopisto.
- Novak, Irina 2019: Venäjän kielen vaikutus tverinkarjalan murteiden äännejärjestelmään. – Sofia Björklöf & Santra Jantunen (eds.), *Multilingual Finnic: Language contact and change*. Uralica Helsingiensia 14. Helsinki: Suomalais-Ugrilainen Seura. 227–248.
- Novak et al. 2019 = Новак, И. & Пенттонен, М. & Руусканен, А. & Сиилин, Л. 2019: *Карельский язык в грамматиках: Сравнительное исследование фонетической и морфологической систем*. Петрозаводск: Карельский научный центр РАН.
- Õispuu, Jaan 1985: Zur Synkope und Apokope in Verbparadigma der Djorža-Mundart des Karelischen. – *Советское финно-угроведение* 3: 171–181.
- Õispuu, Jaan 1988: *Djorža-karjalan nominisanasto*. Eesti NSV Teaduste Akadeemia Ühiskonnateaduste Osakond, preprint KKI-55. Tallinn: Eesti NSV Teaduste Akadeemia.
- Õispuu, Jaan 1990: *Djorža karjala tekstid*. Tallinn: Tallinna Pedagoogiline Instituut.
- Õispuu, Jaan 1994: *Karjala keelesaarte sõnamuutmissüsteem / Inflectional system of Karelian enclaves*. Tallinn: Tallinna Pedagoogikaülikool.
- Õispuu, Jaan 1995: *Djorža karjala vormisõnastik*. Tallinna Pedagoogikaülikooli toimetised. A4 Humaniora. Tallinn: Tallinna Pedagoogikaülikool.
- Ojanen, Muusa 1985: *Adjektiivikategoria venäläis-lyydiläisissä kontakteissa: Lingvistinen interferenssitutkimus*. Suomalais-Ugrilaisen Seuran Toimituksia 188. Helsinki: Suomalais-Ugrilainen Seura.
- Ojansuu, Heikki 1905: *Karjalan äänneoppi*. Suomi: Kirjoituksia isänmaallisista aineista. 4. jakso, 3 osa. Helsinki: Suomalaisen Kirjallisuuden Seura.

- Orlova 1970 = Орлова, В. Г. 1970: *Образование севернорусского наречия и среднерусских говоров*. Москва: Наука.
- Palmeos, Paula 1965: Kõige lõunapoolsemate karjalaste juures. – *Kodumurre* 7: 35–44.
- Palmeos, Paula 1966: Über den Vokalismus der Zubcover Mundart des Karelischen. – *Советское финно-угроведение* 1: 1–5.
- Palmeos, Paula 1968: Mõningaist astmevaheldusküsimustest karjala Djorža murrakus. – *Fenno-Ugrica: Juhlakirja Lauri Postin kuusikymmenvuotispäiväksi 17. 3. 1968*. Suomalais-Ugrilaisen Seuran Toimituksia 145. Helsinki: Suomalais-Ugrilainen Seura. 178–182.
- Palmeos, Paula 1970a: Über die satzphonetischen Veränderungen der Djorscha-Mundart des Karelischen. – *Congressus tertius internationalis Fenno-ugristarum VIII*: 17–23.
- Palmeos, Paula 1970b: Karjala Djorža murraku näiteid. – *Tõid eesti filoloogia alalt III*: 149–158.
- Palmeos, Paula 1973: Hilistekkinud kääänded karjala Djorža murrakus. – *Suomalais-Ugrilaisen Seuran Aikakauskirja* 72: 276–283.
- Palmeos, Paula 1976: Kaassõnad karjala Djorža murrakus. – *Fenno-ugristica* 3: 64–85.
- Palmeos, Paula 1980: Inessiiv karjala Djorža murrakus. – *Fenno-ugristica* 6: 85–93.
- Plöger, Angela 1973: *Die russischen Lehnwörter der finnischen Schriftsprache*. Veröffentlichungen der Societas Uralo-Altaica 8. Wiesbaden: Harrassowitz.
- Pugh, Stefan M. 1999: *Systems in contact, system in motion: The assimilation of Russian verbs in the Baltic Finnic languages of Russia*. Acta Universitatis Upsaliensis. Studia Uralica Upsaliensia 30. Uppsala: Uppsala University.
- Punžina 1975 = Пунжина, А. В. 1975: *Именные категории в калининских говорах карельского языка*. Диссертация на соискания ученого степени кандидата филологических наук. Петрозаводск.
- Punžina 2001 = Пунжина, А. В. (ed.) 2001: *Слушаю карельский говор: Образцы речи дёржанских и валдайских карел*. Петрозаводск: Периодика.
- Pyöli, Raija 1996: *Venäläistyvä aunuksenkarjala: Kielenukkoiset ja -sisäiset indikaattorit kielenvaihtolanteessa*. Joensuu: Joensuun yliopisto.
- Richards, Ronald O. 2003: *The Pannonian Slavic dialect of the Common Slavic proto-language: The view from Old Hungarian*. UCLA Indo-European Studies 2. Los Angeles: UCLA.
- Šapiro 1953 = Шапиро, А. Б. 1953: *Очерки по синтаксису русских народных говоров: Строение предложения*. Москва: Изд-во Академии наук СССР.
- Savinova & Stepanova 2018 = Савинова, А. И. & Степанова, Ю. В. 2018: Карельская диаспора южных районов Тверского Поволжья: История формирования и историческая судьба. – *Carelica* 2018(1): 26–37.
- Shevelov, George Y. 1964: *A prehistory of Slavic*. Heidelberg: Carl Winter.
- SKJa = Пунжина, А. В. 1994: *Словарь карельского языка: Тверские говоры*. Петрозаводск: Карелия.
- SRNG = Филин, Ф. П. (ed.) 1965–: *Словарь русских народных говоров I–*. Москва–Ленинград: Наука.
- Stroganov 1973 = Строганова, Т. Г. 1973: Вокализм. – П. С. Кузнецов (ed.), *Русская диалектология*. Москва: Просвещение. 35–77.
- Trudgill, Peter 2011: *Sociolinguistic typology: Social determinants of linguistic complexity*. Oxford: Oxford University Press.
- Virtaranta, Pertti 1972: Die Dialekte des Karelischen. – *Советское финно-угроведение VIII*: 7–27.

Zaikov 2000 = Зайков, П. М. 2000: *Глагол в карельском языке: Грамматические категории лица-числа, времени и наклонения*. Петрозаводск: Издательство Петрозаводского государственного университета.

Zaharova & Orlova 1970 = Захарова, К. Ф. & Орлова, В. Г. 1970: *Диалектное членение русского языка*. Москва: Просвещение.

## Appendix

Table 1. Pretonic akanye in Russian borrowings in Djorža Karelian

word form	translation	Russian word forms: akanye (okanye)	attested in
<i>bajař</i>	'boyar'	<i>баяр</i> ( <i>баяр[ин]</i> )	Õispuu 1990: 153; 1995: 29
<i>bajuřin</i>	'wife of the boyar'	<i>баярыня</i> ( <i>баярыня</i> )	Õispuu 1990: 153
<i>balgark</i>	'Bulgarian (female)'	<i>балгáрка</i> ( <i>болгáрка</i> )	Õispuu 1995: 29
<i>bespálezñ</i>	'useless'	<i>безпáлэзный</i> ( <i>безполéзный</i> )	Punžina 2001: 88
<i>dajark</i>	'milkmaid'	<i>даярка</i> ( <i>доярка</i> )	Õispuu 1990: 127
<i>darog</i>	'road'	<i>дарóга</i> ( <i>дорóга</i> )	Punžina 2001: 25
<i>davoĴn</i>	'satisfied'	<i>давóльный</i> ( <i>довóльный</i> )	Õispuu 1990: 149
<i>galadofk</i>	'starvation'	<i>галадóвка</i> ( <i>голодóвка</i> )	Õispuu 1990: 40
<i>xaladjets</i>	'aspic'	<i>халадéц</i> ( <i>холодéц</i> )	Õispuu 1990: 84
<i>inagda</i>	'sometimes'	<i>инагдá</i> ( <i>иногдá</i> )	Punžina 2001: 111; Õispuu 1990: 149
<i>katara</i>	'mosquito(s)'	<i>камáр</i> ( <i>комáр</i> )	Õispuu 1990: 179
<i>hažaistvuiččow</i>	'(s/he) manages, keeps the house'	<i>хазя́йствует</i> ( <i>хозяйáйствует</i> )	Punžina 2001: 150
<i>kambainoill</i>	'with combines (harvesters)'	<i>камбáйнами</i> ( <i>комбáйнами</i> )	Punžina 2001: 92; Õispuu 1995: 51
<i>kambañor</i>	'combine operator'	<i>камбáйнер</i> ( <i>комбáйнер</i> )	Õispuu 1995: 51; KehKuz 2019
<i>katod</i>	'chest of drawers'	<i>камóд</i> ( <i>комóд</i> )	Õispuu 1995: 51
<i>kañešñ</i>	'of course'	<i>канéчно</i> ( <i>конéчно</i> )	Punžina 2001: 20–21
<i>(ei ñägit)</i> <i>kanfetkuw</i>	'(one had not seen) candies'	<i>канфéтки</i> ( <i>конфéтки</i> ) ( <i>не видели</i> )	Õispuu 1990: 93
<i>kanserv</i>	'canned food'	<i>кансéрвы</i> ( <i>консéрвы</i> )	Õispuu 1995: 52
<i>karablit</i>	'ships'	<i>карáбли</i> ( <i>корáбли</i> )	KehKuz 2019
<i>karablizill</i>	'on the small ship'	<i>у карáблика</i> ( <i>у корáблика</i> )	Punžina 2001: 117
<i>karalevstva</i>	'kingdom'	<i>каралéвства</i> ( <i>королéвство</i> )	KehKuz 2019
<i>kařičñevoit</i>	'brown (pl.)'	<i>кари́чневые</i> ( <i>кори́чневые</i> )	Punžina 2001: 30

<i>kartat</i>	‘washing tubs’	<i>кары́та (коры́та)</i>	Punžina 2001: 97; Õispuu 1995: 52
<i>kravtišt̄ (ümbär̄)</i>	‘(around) the bed’	<i>(вокруг) кравáти (кровáти)</i>	Punžina 2001: 95; Õispuu 1995: 58
<i>magilkall</i>	‘to the cemetery’	<i>на магíлку (на могíлку)</i>	Punžina 2001: 142; Õispuu 1990: 78
<i>magnetafonaḷ</i>	‘on the tape recorder’	<i>на магнетафо́не (на магнитофо́не)</i>	Õispuu 1990: 166
<i>maladñak</i>	‘young animals’	<i>маладнѝ́к (молоднѝ́к)</i>	Punžina 2001: 20
<i>malepstvie</i>	‘litany’	<i>малеб́ствие (молеб́ствие)</i> ( <i>now моле́бен</i> )	Punžina 2001: 67
<i>maḷtun (ottaw)</i>	‘(accepts) a prayer’	<i>(принимает) мали́тву</i> ( <i>моли́тву</i> )	Punžina 2001: 72; Õispuu 1995: 72
<i>maslaboin</i>	‘creamery’	<i>маслабо́йня (маслобо́йня)</i>	KehKuz 2019
<i>palaḷloi (ruattih)</i>	‘plank beds (were made)’	<i>пала́ти (пола́ти) делали</i>	Punžina 2001: 86
<i>palatno</i>	‘linen’	<i>палатно́ (полотно́)</i>	Õispuu 1990: 116
<i>paléznoi</i>	‘useful’	<i>палѝ́зная (полѝ́зная)</i>	Punžina 2001: 88
<i>patamu</i>	‘therefore’	<i>патаму́ (потому́)</i>	Punžina 2001: 64
<i>patamušt̄</i>	‘because’	<i>патаму́ что (потому́ что)</i>	Punžina 2001: 9–10
<i>prarok</i>	‘prophet’	<i>праро́к (проро́к)</i>	Punžina 2001: 150; Õispuu 1990: 161
<i>rjbalovat</i>	‘fishermen’	<i>рыбало́вы (рыболо́вы)</i>	Õispuu 1990: 163
<i>saldutat</i>	‘soldiers’	<i>салда́ты (солда́ты)</i>	KehKuz 2019
<i>saldutzet</i>	‘toy soldiers’	<i>салда́тики (солда́тики)</i>	Punžina 2001: 116
<i>saldatkakš</i>	‘as a soldier’s wife (or widow)’	<i>салда́ткой (солда́ткой)</i>	Punžina 2001: 172
<i>samaḷjotašt̄</i>	‘from an airplane’	<i>с самале́та (с самолѝ́та)</i>	Õispuu 1990: 140
<i>šelsavetašš</i>	‘in the village council’	<i>в сельсаве́те (в сельсове́те)</i>	Punžina 2001: 146
<i>(ei aḷ) spakoid</i>	‘it does not leave us in peace’	<i>(не даѝ́т) спако́йствия</i> ( <i>споко́йствия</i> )	Õispuu 1990: 161
<i>talakno</i>	‘dry-roasted oatmeal’	<i>талакно́ (толокно́)</i>	Õispuu 1990: 55
<i>tavarñik</i>	‘freight train’	<i>тава́рник (това́рник)</i>	Õispuu 1990: 168
<i>tapḷonoi</i>	‘coddled (pl.)’	<i>таплѝ́ный (топлѝ́ный)</i>	Õispuu 1995: 115
<i>trahtarist</i>	‘tractor driver’	<i>трактари́ст (трактори́ст)</i>	Õispuu 1995: 117
<i>traleibušaḷ</i>	‘in the trolleybus’	<i>в тралле́йбусе</i> ( <i>в тролле́йбусе</i> )	Õispuu 1990: 186

Table II. Akanye in other phonotactic environments in Russian borrowings in Djorža Karelian

In the second or the third syllable before the stressed syllable			
<i>baševika</i>	‘Bolsheviks’	<i>большевики́ (большевики́)</i>	Õispuu 1990: 166
<i>bašinstvo</i>	‘majority, most’	<i>большинствó (большинствó)</i>	Punžina 2001: 169
<i>blaharoid</i>	‘noble’	<i>благарóдный (благарóдный)</i>	Õispuu 1990: 161
<i>xaladjets</i>	‘aspic’	<i>халадéц (холодéц)</i>	Õispuu 1990: 84
<i>hald’iľnik</i>	‘fridge’	<i>халадíľник (холодíľник)</i>	Õispuu 1995: 39
<i>hasudarstval</i>	‘for the state’	<i>для гасудáрства (для гасудáрства)</i>	Punžina 2001: 20
<i>galadofk</i>	‘starvation’	<i>галадóвка (голодóвка)</i>	Õispuu 1990: 40
<i>kalbassuw (žuařtah)</i>	‘they roasted sausage (part.)’	<i>калбасу́ (колбасу́) (жарили)</i>	Õispuu 1990: 79
<i>karalevstva</i>	‘kingdom’	<i>каралéвства (королéвство)</i>	KehKuz 2019
<i>karvodu (vod’ittih)</i>	‘(they were dancing) a round dance’	<i>харавóд (хоровóд) (водили)</i>	Punžina 2001: 17
<i>maladňak</i>	‘young animals’	<i>маладня́к (молодня́к)</i>	Punžina 2001: 20
<i>manastj’iřis</i>	‘in the monastery’	<i>в манастырэ́ (в монастырэ́)</i>	Õispuu 1990: 100
<i>(kakš) padad’daľnikkuw</i>	‘(two) blanket covers’	<i>(два) пададея́льника (пододея́льника)</i>	Õispuu 1990: 172
<i>(heil’) palagaič</i>	‘(they) need to’	<i>(им) палага́ется (полага́ется)</i>	Õispuu 1990: 100
<i>palatno</i>	‘linen’	<i>палатно́ (полотно́)</i>	Õispuu 1990: 116
<i>palévodstvař</i>	‘in the field (farming)’	<i>в палевóдстве (в полевóдстве)</i>	KehKuz 2019
<i>(äiji) pamidoru</i>	‘(a lot of) tomatoes’	<i>(много) памидóров (помидóров)</i>	Punžina 2001: 83
<i>patenuičtah</i>	‘they commemorate (the dead)’	<i>паменя́ют (помина́ют)</i>	Õispuu 1990: 117
<i>patamu</i>	‘therefore’	<i>патаму́ (потому́)</i>	Punžina 2001: 64
<i>patamuřt</i>	‘because’	<i>патаму́ что (потому́ что)</i>	Punžina 2001: 21
<i>pavarčat</i>	‘ladles’	<i>паварёшки (поварёшки)</i>	Punžina 2001: 96; Õispuu 1995: 87
<i>talakno</i>	‘dry-roasted oatmeal’	<i>талакно́ (толокно́)</i>	Õispuu 1990: 55

In the pretonic syllable at the absolute beginning of the word			
<i>abratn</i>	‘back’	<i>а́бра́тно (о́бра́тно)</i>	Punžina 2001: 172
<i>abrat</i>	‘rite, ceremony’	<i>а́бры́д (о́бры́д)</i>	Punžina 2001: 124
<i>adežd</i>	‘clothes’	<i>а́де́жда (о́де́жда)</i>	Õispuu 1995: 27
<i>adteĭn</i>	‘separately’	<i>а́тде́льно (о́тде́льно)</i>	Õispuu 1990: 172
<i>ahotnikat</i>	‘hunters’	<i>а́хотники (о́хотники)</i>	Õispuu 1990: 77
<i>apasnoit</i>	‘dangerous (pl.)’	<i>а́пасны (о́пасны)</i>	Punžina 2001: 29
<i>asobše</i>	‘especially’	<i>а́со́бо же (о́со́бо же)</i>	KehKuz 2019
<i>(kuašuw) afšjanoi</i> <i>(keitettih)</i>	‘(they were cooking) oatmeal (porridge)’	<i>(кашу) ався́ную (овся́ную) (вари́ли)</i>	Õispuu 1990: 130
In the second or the third syllable before the stressed syllable, at the absolute beginning of the word			
<i>abezataĭn</i>	‘necessarily; surely’	<i>а́бязате́льно (о́бязате́льно)</i>	Punžina 2001: 45; Õispuu 1990: 24
<i>abiknovenn</i>	‘usually’	<i>а́быкнове́нно (о́быкнове́нно)</i>	Punžina 2001: 145
<i>abičai</i>	‘custom’	<i>а́бычай (о́бычай)</i>	Punžina 2001: 144
<i>ablivnoit</i>	‘glazed (pl.)’	<i>а́бливны́е (о́бливны́е)</i>	Punžina 2001: 83
<i>abrazuiččow</i>	‘it is being formed, made up’	<i>а́бразу́ется (о́бразу́ется)</i>	Õispuu 1990: 140; 1995: 27
<i>aperacid</i>	‘operation (surgery) (part.)’	<i>а́пера́цию (о́пера́цию)</i>	Õispuu 1990: 175
<i>atalennešt’</i>	‘distant, remote (ela.)’	<i>из а́тдале́нного (из о́тдале́нного)</i>	Õispuu 1990: 175
In the post-tonic syllable			
<i>dohtar’</i>	‘doctor, physician’	<i>до́ктар (до́ктор)</i>	Punžina 2001: 146; Õispuu 1995: 27
<i>hospad’i</i>	‘Good Lord!’	<i>Го́спадю! (Го́сподю!)</i>	KehKuz 2019
<i>(ei ollun) trahtarloi</i>	‘there were no tractors’	<i>(не было) тра́ктаров (тра́кторов)</i>	Õispuu 1990: 116

Table III. [w] corresponding to [v]/[f] in Russian borrowings in Džorža Karelian.

Common nouns			
<i>prawd</i>	‘truth’	<i>п́ра́вда</i>	Punžina 2001: 20
<i>prowd'itah</i>	‘they put through; they draw’	<i>прово́дят</i>	Punžina 2001: 27
<i>awgust</i>	‘August’	<i>а́вгуст</i>	Punžina 2001: 16
<i>lawčal</i>	‘on the bench’	<i>на ла́вке</i>	Punžina 2001: 94; Õispuu 1995: 66;
<i>lawčzet</i>	‘small benches’	<i>ла́вочки</i>	KehKuz 2019 Punžina 2001: 43
<i>owčinaí(e)</i>	‘sheepskin’	<i>овчи́нка</i>	Õispuu 1995: 84
<i>sowhk</i>	‘scoop’	<i>сово́к</i>	Punžina 2001: 96
<i>uprauláššoi (tavottaw)</i>	‘the manager (will catch us)’	<i>управля́ющий (поймает)</i>	Punžina 2001: 64
<i>balouí</i>	‘naughty (child, animal)’	<i>ба́ловень</i>	Punžina 2001: 163
<i>časowná</i>	‘chapel’	<i>часо́вня</i>	KehKuz 2019
<i>šorowno</i>	‘it’s all the same’	<i>все́ равно́</i>	Punžina 2001: 111
<i>jewrei</i>	‘Jew’	<i>евре́й</i>	Õispuu 1995: 47
<i>zawritah (kipetkaí)</i>	‘they poor boiling water on it’	<i>завáraют (кипятком)</i>	Õispuu 1990: 52
<i>towriššat</i>	‘friends, comrades’	<i>товáриши</i>	KehKuz 2019
<i>žawronk</i>	‘skylark’	<i>жа́воронок</i>	Õispuu 1995: 114
<i>žawronkaí(e)</i>	‘little skylark’	<i>жа́вороночек</i>	Õispuu 1995: 114
<i>léwš</i>	‘left-handed’	<i>леви́я</i>	Õispuu 1995: 67
<i>vowś</i>	‘quite’	<i>во́все</i>	Punžina 2001: 166; KehKuz 2019
Names			
<i>Klawd'</i>	‘Claudia’	<i>Клавдия</i>	KehKuz 2019
<i>Ivnowskoiśś</i>	‘in Ivanovskoe (village)’	<i>в Ива́новском</i>	Punžina 2001: 20
<i>Iwnuskoih</i>	‘into Ivanovskoe (village)’	<i>в Ива́новское</i>	KehKuz 2019
<i>ivnowskoizet</i>	‘inhabitants of Ivanovskoe’	<i>ива́новские</i>	KehKuz 2019
<i>iwnanpäiv</i>	‘Kupala Night’	<i>Ива́нов день</i>	KehKuz 2019
<i>moskowskoi</i>	‘inhabitant of Moscow’	<i>моско́вский</i>	Õispuu 1995: 75
<i>Oleksandrowskoiś</i>	‘in Aleksandrovskoe (village)’	<i>в Алекса́ндровском</i>	Õispuu 1990: 15



Inlaut	<i>Šemnowskoih</i> ( <i>kävüim</i> )	‘we went to Semënovskoe (village)’	<i>в Семёновское</i> ( <i>ходили</i> )	Punžina 2001: 16
	<i>šemnowskoizet</i>	‘inhabitants of Semënovskoe’	<i>семёновские</i> ( <i>жители Семёновского</i> )	KehKuz 2019
	<i>Vasiljewskoi</i>	‘into Vasil’evskoe (village)’	<i>в Васильевском</i>	Punžina 2001: 67
	<i>vasiljewskoizet</i>	‘inhabitants of Vasil’evskoe’	<i>васильевские</i> ( <i>жители Васильевского</i> )	KehKuz 2019
	<i>Nouwois</i>	‘in Novoe (village)’	<i>в Новом</i>	KehKuz 2019
	<i>Nouwoi(h)</i> <i>nouwoizet</i>	‘into Novoe (village)’ ‘inhabitants of Novoe’	<i>в Новое</i> <i>жители Нового</i>	KehKuz 2019 KehKuz 2019
Auslaut	Common nouns			
	<i>borow</i>	‘castrated hog’	<i>бóров</i>	Õispuu 1995: 30
	<i>mořkow</i>	‘carrot’	<i>моркóвь</i>	Õispuu 1995: 74
	<i>potkow</i>	‘horseshoe’	<i>подкóва</i>	Õispuu 1995: 92
	<i>traw</i>	‘grass’	<i>травá</i>	Õispuu 1995: 92, KehKuz 2019
	Names			
	<i>Čižow</i>	‘Čižov (family name)’	<i>Чи́жóв</i>	KehKuz 2019
	<i>Posnikow</i>	‘Posnikov (family name)’	<i>Пóсникóв</i>	KehKuz 2019
	<i>Rozow</i>	‘Rozov (family name)’	<i>Рóзóв</i>	KehKuz 2019
	<i>Galhow</i>	‘Galahovo (village)’	<i>Галáхово</i>	Õispuu 1990: 12
<i>Kuñilow</i>	‘Kunilovo (village)’	<i>Ку́ни́лово</i>	KehKuz 2019	