

Lower Kolyma multilingualism: Historical setting and sociolinguistic trends

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Abstract

Aims and objectives/purpose/research questions: The region of Lower Kolyma (LK), Russia, exhibits a unique multilingual situation which involves five languages from five different families: Even (Tungusic), Yakut (Turkic), Chukchi (Chukotko-Kamchatkan), Tundra Yukaghir (Yukaghir), and Russian (Slavic, Indo-European). Our research aims to show the ongoing changes in this setting and to explain the historical background of these trends.

Design/methodology/approach: Our approach combines the results of a sociolinguistic survey, published data about the history and ethnography of the region, and observed linguistic effects of language contact.

Data and analysis: The sample for our sociolinguistic study includes 196 individuals, born between 1878 and 1996. To assess the patterns of multilingualism we use two parameters: the number of acquired languages and the composition of the linguistic repertoires. To model the linguistic situation in the 20th century, an average life span parameter is used.

Findings/conclusions: We demonstrate that in 1940 to 1980 it was most common for LK residents to use all languages of the region. Partly, at least, this was a consequence of the introduction of boarding schools, which became an additional domain for interethnic communication. In recent decades we observe a tendency for a shift to Russian with a concomitant decrease in speakers of the minority languages.

Originality: We use an approach of retrospective interviews which allows us to cover a large time period and to provide an overview of changes in the multilingual setting during the 20th century. Thus, even though multilingualism in this area has already been discussed by Vakhtin, the methodological approach is different.

Significance/implications: The paper contributes to the field of sociolinguistics, presenting a new case study of multilingualism from an area of Siberia which is understudied in this regard.

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Keywords

Small-scale multilingualism, linguistic repertoire, language shift, Chukchi, Even, Yukaghir, Russian, Yakut, language contact

Introduction

This paper discusses multilingualism as practiced in the Nizhnekolymskiy *rayon* (district) of Yakutia Republic of the Russian Federation. This particular *rayon* is situated in the northeast of Russia, near the border with Chukotka Autonomous *Okrug* (an *okrug* is a subunit of a similar rank to a republic). Nizhnekolymskiy means ‘of Lower Kolyma’, referring to the lower course of the Kolyma river, which flows into the Arctic ocean in easternmost Siberia; the area is referred to as the Lower Kolyma region (LK) throughout this article.

The officially used languages of LK district are Russian (the language of politics, commerce, and the most common language used in everyday life) and Yakut (some public street signs and doorplates are in Yakut, and the language is also commonly used in different domains by Yakut and non-Yakut residents). Chukchi, Even and Yukaghir are minority languages. They are recognized as official languages in the places where the corresponding ethnic population dominates.¹ However, in practice they are never used in official life, except as school subjects, and there are no longer any children who are fluent speakers of Chukchi, Even or Yukaghir.

The paper describes the linguistic situation in three localities of the LK district: Andryushkino, Kolymskoye and Cherskiy; we also take into account the nomadic populations of the area. In Andryushkino, on the bank of the Alazeya river, Evens, Yukaghirs and Yakuts live together. Chukchis are not currently present in Andryushkino, but lived there historically as well; in 1940, when Andryushkino was established, there were several mixed Chukchi families. Kolymskoye and Cherskiy are situated near the Kolyma, along its lower course (see Figure 1). Kolymskoye is a predominantly Chukchi village with a considerable share of Yukaghir, Even and several Yakut families. Cherskiy is a regional center, so all local peoples can be found there.

Our current study combines the results of a sociolinguistic survey with an analysis of the linguistic traits that resulted from contact between Even (Tungusic), Yakut (Turkic), Chukchi (Chukotko-Kamchatkan), and Tundra Yukaghir (Yukaghir family). In our interpretation of the results we take into account the historical background as well as known facts about Soviet language policies in the region.

The paper has the following structure. In the first section, we outline previous research on the linguistic situation in the region. The next section is devoted to the principles of data collection and analysis as well as the theoretical framework of the current study. In the third section, we present the variation of linguistic repertoires of the whole sample. In the fourth section, we offer an analysis of these repertoires, presenting possible explanations for the observed tendencies, grounded in the socioeconomic history of the region. In the fifth section, we give a glimpse of the linguistic outcomes of this multilingual setting. The sixth and final section provides conclusions.

Previous sociolinguistic research in the Lower Kolyma area

Multilingualism involving more than two minority languages is a rare phenomenon in northern Siberia. Among the rare exceptions are the area of Lower Yenisei (see Khanina, 2021) and the LK region. The first quantitative data pertaining to multilingualism in the region come from the reports of Gurvich (1952, 1959). He carried out two ethnographic expeditions to the Nizhnekolymskiy district and collected information about the linguistic repertoires of the workers in the *kolkhoz* (collective farm) ‘Turvaargin’, whose headquarters were, and still are, in Kolymskoye. Excluding any kind



Figure 1. Lower Kolyma area (map courtesy of Yu. Koryakov).

of semi- or passive speakers his data nevertheless show that monolingualism was the least widespread repertoire (23%) and bilingualism was the most common (50%), followed by tri- or quadrilingualism (27%). Gurvich also gives information about the possible linguistic repertoires of the region.

In 1987, Vakhtin (1991, 2001) undertook a sociolinguistic survey in the LK region. His study focuses more on the degree of language proficiency than on the exact numbers of multilinguals speaking different sets of languages. But for Yukaghirs, Vakhtin (1991, pp. 14–17) also provides information about individual linguistic repertoires. A peculiar sociolinguistic situation is described for the highly endangered Yukaghir language in Andryushkino, with non-Yukaghirs having a command of the language (a consequence of a highly developed multilingualism). In Andryushkino, the majority of Yukaghirs were either pentalingual (29%) or quadrilingual (54%), the remaining respondents (17%) being trilingual; no monolingual or even bilingual repertoires were found. Yakuts and Evens could either speak or understand Yukaghir and each other's languages (balanced trilingualism).

The available sociolinguistic data allow us to suggest that the multilingual setting in the LK region has been changing throughout the 20th century and that its patterns were different in different areas of the region. Further on we provide more discussion of this temporal and spatial variation. The next section prepares the way by presenting the methodology used in our investigation.

Our research: Data and methodology

The data for this study were mostly collected by Maria Pupynina in 2018 in Cherskiy and Kolymaskoye. We used a questionnaire compiled specifically for this sociolinguistic study. It contains questions about the linguistic repertoires of the respondents and about their biographies, including, for example, the year and place of birth and the locations of schools attended. Inspired by the approach of retrospective interviews (Dobrushina, 2013; Dobrushina & Moroz, 2021; Khanina, 2019; Khanina, 2021), we also asked the respondents about their parents and caregivers (including caregivers if they played a role in the childhood of the respondent), obtaining information about their year of birth and their linguistic repertoires. Unlike Dobrushina (2013), we did not go deeper in time than the parents' generation, except for the cases when the respondents' grandparents were their primary caregivers. In many cases it would be impossible for our respondents to recall information about the linguistic repertoires of their grandparents, or that information would be unreliable. We also collected information about the level of proficiency in each language and the contexts of its use for all the respondents and their parents. In addition to the questionnaire, open-ended interviews were collected from several of the most knowledgeable multilingual speakers. These respondents provided detailed linguistic biographies of their parents, siblings, distant relatives, friends, parents' friends, etc., and considerable data on the history of the region (school education, construction of villages, collectivization, nomadic traditions, etc.).

The questionnaire was filled in by the researcher or by the respondents themselves. In rare cases that should not affect the reliability of the overall information, the questionnaire was filled in by a close relative of a respondent (e.g. a sister for her brother). In total, we received first-hand data from 84 LK residents: 78 respondents provided information to Maria Pupynina in 2018 in Cherskiy and Kolymaskoye, and six more respondents were asked to fill in the questionnaires by our colleagues in Yakutsk in 2019. All respondents were over 23 years old. The parents of the respondents predominantly came from the tundra along the lower course of the Kolyma and Alazeya rivers, with the exception of a few individuals (4% of the parents' sample), who moved into the region from Central Yakutia or from other places after marriage. We consider those individuals to be part of the linguistic community of the region, and several of them were also reported to have acquired some level of proficiency in the local languages.

In this study, we draw upon data from 196 individuals, who include the respondents themselves as well as their parents and caregivers. The composition of an individual's linguistic repertoire is constituted by all acquired languages: for each language, the level of proficiency ranges from 'fluent speaker' to 'understands the general meaning'. This makes our data more comparable to those of Vakhtin (1991, 2001) than to those of Gurvich (1952, 1959); see 'Previous sociolinguistic research' above. The respondents' dates of birth lie between 1933 and 1996, while the reported birth dates of the parents and caregivers lie between 1878 and 1963. Thus, the survey covers the whole 20th century.

The term **linguistic repertoire** widely used in this article sometimes refers to a set of codes or language practices in a particular community (see Gumperz, 1964; Hymes, 1972), but recently it has been applied to the languages used by individual members of a speech community (see the discussion of the difference by Singer & Harris, 2016, p. 181). We use the term in the latter sense. In the current article we use the whole data sample, considering mainly two parameters of multilingualism: the **number of languages** in a repertoire (cf. the study by Dobrushina & Moroz, 2021, which uses this parameter in correlations with population size) and the **language composition** of a repertoire, that is, the specific set of languages that make up each person's repertoire. We then investigate the temporal variation of these parameters. Using a special methodology, based on average life expectancy, we reconstruct the multilingual profile of a community within eight successive 10-year time spans from 1940 to 2010 (see 'Dynamics of multilingualism' below). Then, using first-hand data only, we observe the spatial variation of multilingual patterns in two villages

of the region. For this, we use our first-hand data, which include a school location parameter ('The role of schools in the development of multilingualism', below). Including the factor of education is in keeping with the ethnographic approach that pays attention to socioeconomic and cultural factors influencing the linguistic situation (see Eckert, 2012).

Unfortunately, it was impossible to use our data to picture a language situation in the LK region before 1940, when multilingualism was presumably a widespread practice. The number of respondents born before 1900 and in the early 20th century is very low (21 subjects in our sample are born before 1915). To evaluate and explain the changes of the two abovementioned parameters (number of languages and language composition) in 1900 to 1940, we present relevant information from historical and ethnographical sources (see 'Explaining the dynamic trends of LK multilingualism' below). This historical-sociolinguistic substudy is an important part of our paper, emphasizing the interdisciplinary trend of our approach. As a general methodological influence on this study, we should also mention the concept of small-scale multilingualism, that is, a situation where no particular language is dominant and language choice is governed by social practices rather than by domain specialization (Lüpke, 2016, p. 35). Although LK multilingualism is not a 'clear' small-scale case, it is definitely similar in some respects.

Despite the fact that we collected information on ethnic self-identification for all respondents, including their parents and caregivers, we do not use it in the present analysis. Because of the multiple, often forced, migrations over the 20th century (see the sections on 'Explaining the dynamic trends of LK multilingualism' and 'The role of schools in the development of multilingualism'), there is a large number of ethnically mixed families. The consultants may assess themselves differently depending on their interlocutor, and two siblings can ascribe different ethnicities to their mother. Thus, ethnic composition is a complicated, multifaceted issue and deserves deeper attention in a separate study. Nor do we report on the level of language proficiency in the current study. It deserves mentioning that in the way we cite the repertoires the order of languages is random: for example, the ascription of a Chukchi/Yukaghir/Even repertoire does not mean that Chukchi is somehow the first or dominant language of the consultant.

Linguistic repertoires of the whole sample

The five languages of the region can theoretically make up 31 linguistic repertoires (five monolingual ones, 10 bilingual ones, 10 trilingual ones, five quadrilingual ones and one pentalingual repertoire). However, not all 31 possible combinations of languages are present in the linguistic repertoires of our respondents and their parents/caregivers. In Table 1, we present all these theoretically possible linguistic repertoires, marking the non-recorded ones in gray. Since the subjects were born between 1878 and 1990, this table represents variation in LK linguistic repertoires in the entire 20th century.

Most monolinguals in our dataset speak Russian. Chukchi, Even and Yakut monolingualism is rather rare. Yukaghir monolingual repertoires were not reported (see also the absence of Yukaghir monolinguals reported in Vakhtin, 2001). Among bilingual repertoires, Chukchi/Russian and Yakut/Russian occur most frequently, and three of the 10 theoretically possible bilingual constellations were not reported. Trilingualism is the least common multilingual practice with only 35 trilingual subjects in the whole sample. Four out of 10 theoretically possible trilingual repertoires were not found in the sample. All possible quadrilingual repertoires were found, the most frequent ones being Chukchi/Even/Yakut/Russian and Yukaghir/Even/Yakut/Russian. Yukaghir and Even co-occur only in quadrilingual repertoires, not in bilingual and trilingual ones. Pentalingualism is the most common linguistic repertoire in the sample.

Table 1 merely presents an overview of the linguistic repertoires in the whole LK area throughout the 20th century. Looking at these data from various specific angles allows us to recognize certain patterns in this complex picture. In the sections on the 'Dynamics of multilingualism' and

Table 1. Linguistic repertoires of 196 respondents.

<i>Monolinguals</i>	15	<i>Trilinguals</i>	35
Chukchi	3	Chukchi/Yukaghir/Even	
Yukaghir		Chukchi/Yukaghir/Yakut	1
Even	1	Chukchi/Yukaghir/Russian	7
Yakut	2	Chukchi/Even/Yakut	
Russian	9	Chukchi/Even/Russian	6
<i>Bilinguals</i>	47	Chukchi/Yakut/Russian	5
Chukchi/Yukaghir	1	Yukaghir/Even/Yakut	
Chukchi/Even	2	Yukaghir/Even/Russian	
Chukchi/Yakut		Yukaghir/Yakut/Russian	2
Chukchi/Russian	27	Even/Yakut/Russian	14
Yukaghir/Even		<i>Quadilinguals</i>	44
Yukaghir/Yakut	2	Chukchi/Yukaghir/Even/Yakut	4
Yukaghir/Russian		Chukchi/Yukaghir/Even/Russian	2
Even/Yakut	3	Chukchi/Yukaghir/Yakut/Russian	7
Even/Russian	2	Chukchi/Even/Yakut/Russian	13
Yakut/Russian	10	Yukaghir/Even/Yakut/Russian	18
		<i>Pentalinguals</i>	
		Chukchi/Yukaghir/Even/Yakut/Russian	55

Note: Shaded cells represent possible repertoires which were not recorded in the sample.

‘Explaining the dynamic trends of LK multilingualism’ we show how the degree of multilingualism changed with time. In the section on ‘The role of schools in the development of multilingualism’ we address the geographic variation in the linguistic repertoires and the role of boarding schools in multilingual communication.

Lower Kolyma linguistic repertoires in time and space

Dynamics of multilingualism

We begin our investigation by binning all existing individual repertoires into three periods; see Table 2. The basic tendency revealed is that repertoires without Russian are disappearing, and new bilingual, trilingual and quadilingual repertoires that include Russian emerging. Among the subjects born between 1961 and 1996 (period 3), there are no individuals who are monolingual in Chukchi, Even or Yakut. There is a clear tendency for quadri- and pentalingualism to disappear: there are nine quadilinguals in period 3 as opposed to 22 in period 2, and only four pentalinguals in period 3 as opposed to 25 and 26 in the other time periods.

Bilingual, trilingual and quadilingual repertoires without Russian are rare, and all the individuals with these repertoires were born in periods 1 and 2 (but not 3). Instead, one new bilingual, three trilingual and one quadilingual repertoire including Russian develop in periods 2 and 3.

Table 2. Dynamics of linguistic repertoires by three periods.

	Period 1	Period 2	Period 3
	Born before 1930 (61 subjects)	Born between 1931 and 1960 (91 subjects)	Born after 1961 (44 subjects)
<i>Monolinguals</i>	5	8	2
Chukchi	1	2	0
Even	1	0	0
Yakut	2	0	0
Russian	1	6	2
<i>Bilinguals</i>	13	21	13
Chukchi/Yukaghir	1	0	0
Chukchi/Even	1	1	0
Chukchi/Russian	3	13	11
Yukaghir/Yakut	2	0	0
Even/Yakut	2	1	0
Even/Russian	0	1	1
Yakut/Russian	4	5	1
<i>Trilinguals</i>	5	14	16
Chukchi/Yukaghir/Yakut	1	0	0
Chukchi/Yukaghir/Russian	1	3	3
Chukchi/Even/Russian	0	2	4
Chukchi/Yakut/Russian	0	2	3
Yukaghir/Yakut/Russian	0	0	2
Even/Yakut/Russian	3	7	4
<i>Quadrilinguals</i>	13	22	9
Chukchi/Yukaghir/Even/Yakut	3	1	0
Chukchi/Yukaghir/Even/Russian	1	0	1
Chukchi/Yukaghir/Yakut/Russian	3	1	3
Chukchi/Even/Yakut/Russian	4	9	0
Yukaghir/Even/Yakut/Russian	2	11	5
<i>Pentalinguals</i>			
Chukchi/Yukaghir/Even/Yakut/Russian	25	26	4

The periodization in Table 2 is based on the birth years, and the picture we observe for each of the established birth year ranges cannot be automatically equated with the sociolinguistic situation in that period. Below we suggest a possible reconstruction of this situation. We model the quantitative changes in linguistic repertoires, tracing the linguistic situation in the region from 1940 to 2010. For this, we consider the changes in the proportion of mono-, bi-, tri-, quadri- and pentalinguals in each time span.

We divided the period into decennial intervals and selected those people from our sample who were adults during the different intervals, that is, those who could take part in the multilingual setting of the time. Taking into account people's linguistic biographies we determined the youngest age of individuals included as 25 years: the age when a person in traditional society is usually married and has their first children. In LK, people often acquired languages not only in their early childhood, but also at school and, later, from their spouses. However, it is still possible that a

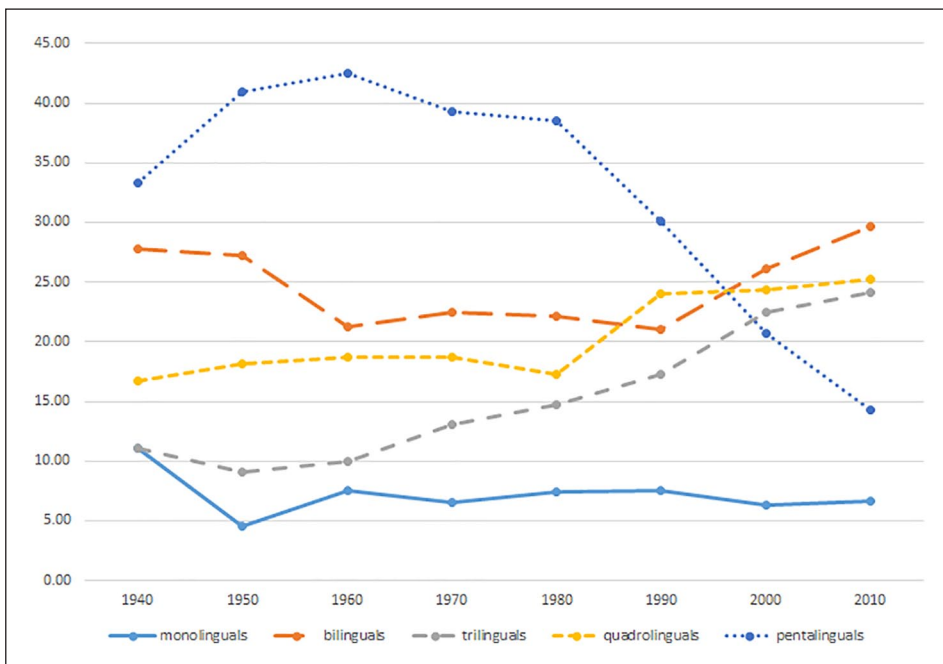
Table 3. Number and age of individuals per decade starting 1940 to 2010.

Start of the decade	1940	1950 ^a	1960	1970	1980	1990	2000	2010
Number of subjects	18	44	80	107	122	133	111	91
Age of subjects	25–44	25–56	25–68	25–69	25–68	25–69	25–65	25–69

^aSince Efimova (2012) does not have information on the life length in 1949, for the decade of 1950 we use the value of 55 years, which is the average between the values for 1939 and 1959.

language is acquired even later, after the age of 25 years, especially as far as Russian and Yakut are concerned (see also Vakhtin, 2001, p. 120). We used the available census data on average life expectancy (Efimova, 2012). For example, the data for the period 1940 to 1949 were selected as follows. According to Efimova (2012, p. 39), the approximate life length in 1939 was about 44 years. Thus, for the decade of 1940, we include data on all the individuals who were born between 1896 and 1915. The average life span for each decade is shown in Table 3 as the upper boundary of the subjects' age (bottom row). The absolute numbers of people included in each decade are presented in Table 3, and the percentage data are plotted in Figure 2.

Figure 2 shows that having a command of all languages of the region was the most common linguistic practice in LK from the 1940s to the end of the 1980s: the pentalingual curve is considerably higher than the others in this period. A mild recession of the pentalingualism starts in the 1960s, and after the 1980s fewer and fewer people acquire all the languages of the region. In the 21st century, it becomes natural to speak two languages, Russian and one ethnic language (cf. a similar development from multilingualism to Zauzou/Mandarin bilingualism described by Li, 2021). Interestingly, monolingualism does not show considerable changes during the whole period,

**Figure 2.** The dynamics of the multilingual situation during 1940 to 2010 (Y-axis: %).

except a small fall and rise in the decade starting in 1950, when the relevant single used language changed from being an ethnic one to being Russian. However, the curves show that even today, being able to communicate in two, four or three languages of the region is still more common than speaking only one language.

Since we cannot visualize the composition of these repertoires because of the multitude of dimensions, in Figure 3 we introduce a visualization of the vitality of each language which aids in the interpretation of the curves in Figure 2. It is based on the calculations of approximate numbers of speakers for each of all five LK regional languages, available from our survey materials. The numbers of the subjects for each year is the same as in Table 3.

Figure 3 shows that in the 1940s, only 50% of the sample had a command of Russian, in the 1950s the ratio of Russian speakers dramatically grew up to 80%, and it continued to grow steadily thereafter. Once again, this proves that Russian gradually became included in all the possible bilingual, trilingual and quadrilingual linguistic repertoires. Note that, despite the rapid growth of the Russian language curve during the whole period, Russian does not show a tendency to replace other languages completely. The number of monolinguals in Figure 2 does not grow, which means that for the whole period after 1950, when only Russian monolinguals were present, the residents could usually speak at least one local language in addition to Russian). At the same time, Russian did not play a big role in indigenous communities before the studied period (see the sections on ‘Explaining the dynamic trends of LK multilingualism’ and the ‘Linguistic outcome of Lower Kolyma multilingualism’). The rise of quadrilingual and trilingual repertoires, corresponding to the fall of pentalingualism after 1980, is explained by the fact that ethnic languages started to ‘fall out’ from penta- and quadrilingual repertoires. Figure 3 shows that the curves of each of the other languages’ contribution to the composition of repertoires decline.

A short linear growth of the Yakut language curve is evident in 1940 to 1950 (for further explanation, see the sections on ‘Explaining the dynamic trends of LK multilingualism’ and ‘The role of

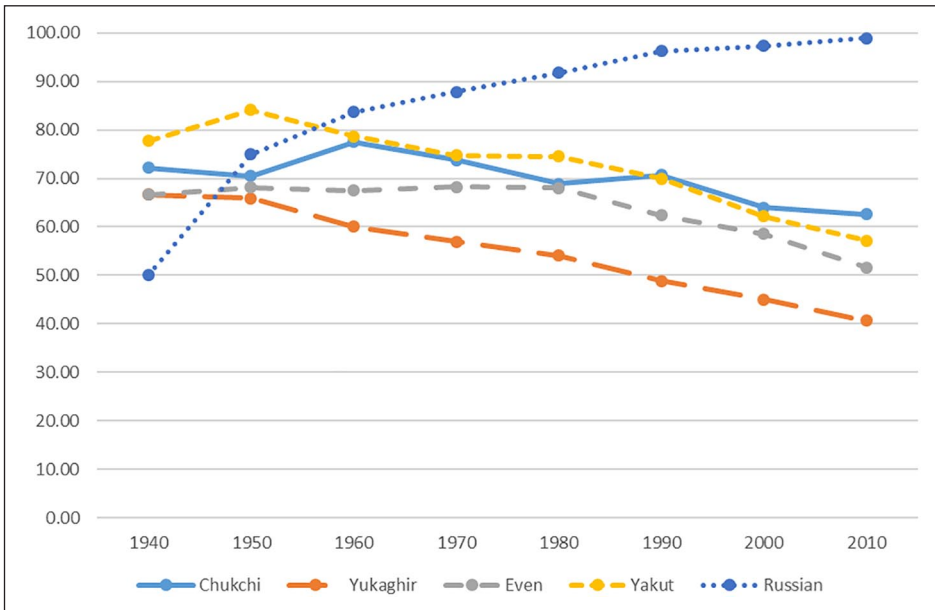


Figure 3. Number of people speaking each language during 1940 to 2010 (Y-axis: %).

schools in the development of multilingualism'). Later on, Yakut gradually loses its importance, which corresponds to Vakhtin's observations about Yakut being replaced by Russian among the youngsters in Andryushkino. Another growth is seen for Chukchi during the decade from 1950 to 1960. For further explanation of these oscillations involving Yakut and Chukchi, see our research on spatial variations in the composition of linguistic repertoires (see 'The role of schools in the development of multilingualism' below).

Note that Chukchi/Russian bilingualism is the most widespread bilingualism type for the people born after 1961, and Chukchi (together with Yakut) is the language that shows greatest vitality, after Russian, in the 2010s (Figure 3). This might be explained by some bias towards Chukchi in our data.²

It is intriguing that pentalingual repertoires (together with bilingual and trilingual repertoires) show a rapid increase in the period between 1940 and 1950. Is it a real increase or just an accidental fluctuation? For the following section, we collected historical data which can shed light on multilingualism at the beginning of the 20th century.

Explaining the dynamic trends of LK multilingualism: Geographical and historical background

The LK region is situated in the lowland tundra surrounding the estuaries of Kolyma and Alazeya, two rivers that flow into the Arctic ocean. These lands are full of lakes of different sizes and kinds, some of them surrounded by extensive swamps. The lakes connect with each other and with big rivers by a net of peculiar watercourses (*viski*) with practically no current. The *viski* and lakes are beneficial inasmuch as they provide plenty of fish. **Yukaghirs**, who were the first known settlers of the region (Gogolev et al., 1975), were primarily fishers and partly hunters. They were a nomadic group with small reindeer herds or sometimes with no reindeer at all. The **Evens** entered the Lower Kolyma at the beginning of the 18th century, and two Even clans occupied the lands very close to the territory of two Yukaghir clans, leading to increased bilingualism (see Pupynina et al., 2020). By that time, all Yukaghir clans to the west of Indigirka were assimilated by Evens and Yakuts (Jochelson, 1926, p. 20). Evens were forest hunters and reindeer-herders but used their herds primarily for transportation (Turaev et al., 1997, p. 58). In new conditions of tundra, they adopted some features of Yukaghirs, who, in turn, adopted some aspects of Even culture. The census of 1897 reveals that 86% (142 of 165) of LK Evens pertaining to one big clan (Betil'skiy) reported Yukaghir as their mother tongue; the others spoke Even (Patkanov, 1912, pp. 796–813). These data allow us to assume that all clan members were Even/Yukaghir bilinguals. There was strong Even influence on Yukaghir culture in the sphere of traditional clothes, dwelling, dances and so on as well (Jochelson, 1926, pp. 149, 167, 192).

The wet, cold tundra provided bad conditions for **Yakut** cattle and horse breeders. Along the lower course of the Kolyma and Alazeya, they lived near the forest limits in administrative units (*naslegs*), but rarely entered the tundra itself. As Even and Yukaghir tundra clans traveled closer to the woods than to the sea, they often visited Yakuts. As Jochelson notes, Yukaghirs put 'their winter tents in the woods just south of the tundra, not far from the winter settlements of the polar Yakut' (Jochelson, 1926, p. 49). Although Yakuts in part made their living from fishing, the basis of their economy was cows and horses, which meant that they enjoyed a higher degree of economic stability than Evens and Yukaghirs, who only fished and hunted. At the beginning of the 20th century, extremely bad economic conditions are recorded for the Evens and Yukaghirs of the area. Some families found it safer to spend part of the year in Yakut settlements (Rozhanovskiy, 1907, pp. 180–181). The language of communication was Yakut, leading to partial Even/Yukaghir/Yakut multilingualism for those Even and Yukaghir clan members who were already bilingual (however, note the absence of this repertoire

in the sample). The great significance of Yakut for Even and Yukaghir languages is demonstrated in the section on the ‘Linguistic outcome of Lower Kolyma multilingualism’.

At the same time, the flat and windy but not extremely cold LK tundra was ideal for **Chukchi** reindeer-breeding communities with larger-size herds. They crossed the Kolyma, moving from their homelands near the northeast extremity of the continent, in the 1870s (Majdel, 1891), and quickly spread out up to the Indigirka. They used to occupy these lands earlier but had to retire due to the conflicts with Russians that occurred in the area in the 17th to 18th centuries (Nefyodkin, 2017, pp. 22–32). Thus, their contacts with local Evens, Yukaghirs and Yakuts were not sustained for a very long period. Additionally, many Chukchi nomadic clans typically reached the Arctic ocean between the Kolyma and Alazeya in July/early August and then moved towards the forest limits to the east of Kolyma where they spent the coldest period of the year. Yukaghirs and Evens, on the other hand, rarely reached the sea, and their movement crossed with those of Chukchis only for a short time of the year. Several authors (Bogoras, 1909; Polyakov, 1983) mention labor contacts between wealthy Chukchi herd owners and poor male Yukaghirs and Evens. Besides, Yukaghir and Even women married Chukchis, who gave reindeer products to the community of their future wife (Bogoras, 1909, pp. 591–592). Yukaghir, Even and even Russian women marrying Chukchi men typically switched to Chukchi; a typical case is described in Sinyavin (1911, p. 535). Yakut/Chukchi marriages were extremely rare (Iokhel’son, 1900). Chukchis, in turn, typically did not speak other languages, not even Russian. Only near Indigirka, where the Chukchi were ethnically a minority, some of them spoke Yukaghir, Yakut, and Even (see Pupynina & Koryakov, 2019). In the section on the ‘Linguistic outcome of Lower Kolyma multilingualism’, we show that there are very few instances of contact between Chukchi and Even or Chukchi and Yukaghir languages.

Russians lived only near the estuaries of the big rivers, Alazeya, Indigirka and Kolyma, in the so-called *zaimkas*, settlements which consisted of several wooden houses. Their main occupation was fishing. The LK Russians used to speak a dialect close to the northern dialects of Russian (typical of the Arkhangel’sk area), but by now this dialect can be considered extinct (Vakhtin et al., 2004). Some Yukaghir and Yakut clans settled near Russians and adopted their culture and language, but the other indigenous people of the tundra did not meet Russians on a regular basis.

Above we demonstrated that, among the inhabitants of LK, widespread bilingualism (Even/Yukaghir) is recorded only for Even clans. It is possible that some Yukaghirs were also bilingual in Even and Yukaghir. Some Evens and Yukaghirs had regular contacts with Yakuts and possibly were trilingual. Sporadic multilingual repertoires of Evens and Yukaghirs were also mentioned by Jochelson (1926, p. 46). We suppose that those multilingual individuals were Yukaghirs and Evens working in Chukchi herds, or Yukaghirs and Evens who often served as guides for Russian visitors. At the same time, there is evidence that the turn of the 20th century saw monolingual Yukaghir communities where the majority did not speak other languages (Gurvich, 1952, p. 205). Similarly, in their detailed study of numerous Senegal multilingual communities, Sagna and Hantgan (2021) reveal that the individuals who are 70 years or older were often monolingual. Our older consultants confirm the spread of Yukaghir monolingualism as well. One of our consultants of Yukaghir origin, who was born in 1941 in the Tustakh-Sen’ community, said that her parents were monolingual in Yukaghir during their childhood (1910s–1920s) and only learned Yakut at mature age (the mother learned it passively and the father could say simple phrases), because of trading/exchange needs. There is little evidence that LK Yakuts, Russians and Chukchis spoke languages other than their ethnic ones (except that a few Yakuts could speak Chukchi, and some Russians and Chukchis could speak Chukchi-Russian jargon; see Pupynina & Koryakov, 2019). In our sparse dataset, which is nevertheless important because it is sensitive to passive language knowledge, among people born in 1897 to 1916, 13 are mono- or bilingual, and 11 are multilingual, so no pentalingual dominance is attested.

After the establishment of Soviet rule, collectivization was launched and led to the creation of *kolkhoz* nationalized enterprises (collective farms). The majority of natives automatically became

employees of these. Administratively, the indigenous population was now under the rule of a complex system of a number of subordinated units. On the lower level, two subdistricts were created: Olyorinskiy *suktul* (*nasleg*) and Khalarchinskiy *nasleg*, with local centers in Andryushkino and Kolymaskoye, respectively. The population of several smaller ethnic villages was forcibly resettled to the ‘capitals’ of two *naslegs*. Additionally, nomadic children of all ethnicities were collected to the two newly established boarding schools of the two villages. This perfectly fitted into the paradigm of the Soviet ethics: children of prosperous Chukchi reindeer herd owners and children of poor Yukaghirs and Evens sat next to one another in one classroom, proving the slogan that all nations had the right to become educated. The nomadic and semi-nomadic adult population of the tundra were forced to work for *kolkhozes*, later re-organized into *sovkhazes* (literally Soviet farms, a form of state-owned farm), which consisted of reindeer-herding, hunting, fishing and cattle-breeding brigades. This was the system’s attempt to adapt the traditional practices of Chukchis, Evens, Yukaghirs and Yakuts to the new state and its needs. The new occupation of a person did not always correspond to his/her traditional activity. Thus, Chukchi dairymaids, Yakut reindeer-herders, etc., appeared. Chukchi, Even and Yukaghir herds were redistributed. Several multiethnic reindeer-breeding *brigades* (work teams governing one herd) were created. As was common in other Siberian regions, nomadic routes could be partly similar to the pre-Soviet ones, but generally were shortened. People were organized around collective farm headquarters, a fixed center around which nomads gradually settled (Forsyth, 1992, p. 297). The number of mixed marriages increased (see the report on mixed families in 1994 by Lugovskoy, 2011). In 1959, among the workers of Turvaurgin *kolkhoz* (Kolymaskoye), the majority of marriages were mixed Chukchi–Yukaghir, Yukaghir–Even or Yakut–Yukaghir, and a similar situation, with fewer Chukchi participants, was found in Andryushkino (Gurvich, 1959).

For the LK region these measures, unintentionally, created a platform for multilingualism. Despite the growing prestige of Russian in all spheres (see Figure 3), which finally led to an ongoing language shift, three important multilingual domains appeared as the ‘socialist machine’ picked up the speed:

- (1) At home, due to interethnic marriages.
- (2) At work, in *kolkhoz/sovkhaz* brigades.
- (3) At the boarding school, in the dorms, and – later – between former school mates.

In the data collected we have information concerning school localities, but we lack data on the two other domains. In the next section we discuss spatial variation in the composition of repertoires caused by differences in school locations.

The role of schools in the development of multilingualism

In this section we compare the composition of linguistic repertoires and school settings in two villages: Andryushkino and Kolymaskoye, each of which has a boarding school. The language situation in these villages and, in particular, in their boarding schools, differed at the time of their foundation in the early 1940s, and changed in different ways through the period of investigation. These differences have to do with the ethnic composition of the two villages, and the history of their foundations and development.

In Table 4, which is based on our first-hand data, we illustrate how the composition of the linguistic repertoires of our respondents differs according to the village where they went to school (if an individual studied in other locations, e.g. in Cherskiy and Kolymaskoye, s/he was assigned to the Kolymaskoye school group).

The number of possible language repertoires of the graduates of the two schools differs strikingly, according to Table 4: five in Kolymenskoye versus 10 in Andryushkino. Moreover, compositionally the existing repertoires are mutually distributed (with the exception of pentalinguals in the bottom row). Note that, in Andryushkino, Chukchi is present only in the pentalingual repertoire. In Kolymenskoye, all Chukchi-including repertoires are possible. Nearly all (except one bilingual) repertoires of former Andryushkino schoolchildren include Yakut, whereas in Kolymenskoye only half of the repertoires do so, which demonstrates the peculiar importance of Yakut for Andryushkino. To account for these facts, let us trace the history of both boarding schools.

In the early 1930s, primary (non-boarding) schools were opened in the small traditional Yakut, Even and Yukaghir settlements of the LK region. In the 1930s to 1940s, a wave of relocations started all over the country (see e.g. Khanina et al., 2018, p. 120, about relocations of Enets and its drastic role in language ecology). The majority of inhabitants of many smaller villages were relocated to the new subdistrict centers Kolymenskoye and Andryushkino. Some adults stayed in their villages, but all children were obligatorily taken to the boarding schools.

The population of Andryushkino was generally constituted by Yukaghirs, Evens and Yakuts, since their camps/villages were situated in Olyorinskiy *nasleg* at the moment of creation of this administrative unit. There were some Chukchis, but they were already in the process of assimilation (see above, ‘Explaining the dynamic trends of LK multilingualism’). Kolymenskoye, which is located within Khalarchinskiy *nasleg*, had more Chukchis, though all other ethnicities were present

Table 4. Repertoires of 78 respondents (born between 1933 and 1996), grouped by school location.

Andryushkino (26 respondents)		Kolymenskoye (52 respondents)	
<i>Monolinguals</i>			
Russian	0	Russian	1
<i>Bilinguals</i>			
Chukchi/Russian	0	Chukchi/Russian	19
Even/Russian	1	Even/Russian	0
Yakut/Russian	0	Yakut/Russian	2
<i>Trilinguals</i>			
Chukchi/Yukaghir/Russian	0	Chukchi/Yukaghir/Russian	4
Chukchi/Even/Russian	0	Chukchi/Even/Russian	4
Chukchi/Yakut/Russian	0	Chukchi/Yakut/Russian	4
Yukaghir/Yakut/Russian	1	Yukaghir/Yakut/Russian	0
Even/Yakut/Russian	7	Even/Yakut/Russian	0
<i>Quadrilinguals</i>			
Chukchi/Yukaghir/Even/Russian	0	Chukchi/Yukaghir/Even/Russian	1
Chukchi/Yukaghir/Yakut/Russian	0	Chukchi/Yukaghir/Yakut/Russian	3
Chukchi/Even/Yakut/Russian	0	Chukchi/Even/Yakut/Russian	6
Yukaghir/Even/Yakut/Russian	11	Yukaghir/Even/Yakut/Russian	0
<i>Pentalinguals</i>			
Chukchi/Yukaghir/Even/Yakut/Russian	6	Chukchi/Yukaghir/Even/Yakut/Russian	8

Note: Non-zero repertoires are indicated with gray backgrounds.

as well. As Chukchi, Even and Yukaghir adults at the end of the 1930s to 1940s often stayed in the tundra, the indigenous population of the villages to a large extent consisted of schoolchildren taken to the boarding schools. The number of villagers grew when those former schoolchildren became its permanent residents (in 2019, the population of Kolymaskoye was 775, and Andryushkino had 703 inhabitants³). Only the younger subjects in the sample were born and spent their childhood in Andryushkino and Kolymaskoye, whereas the older people were typically born or spent their first years in the tundra or in small localities that were later closed down. For the children who studied in schools after 1940, the school was the first experience of social life and life in a 'big' settlement.

The language of administration of the whole LK district initially was Yakut. In Andryushkino school, before the early 1950s, Yakut was also the language of instruction. This tradition was started in the 1930s by Khara-Tala boarding school previously situated near modern Andryushkino. As a result, several of our older non-Yakut consultants, graduates of Andryushkino school, had better command of Yakut than Russian. Besides, Yakut was often the lingua franca used between Yakut, Even and Yukaghir students. Interestingly, it is only after the establishment of boarding schools with Yakut as language of instruction that non-Yakut children started acquiring this language. Before, it was acquired more often by adults who were involved in economic relations with Yakuts (see 'Explaining the dynamic trends of LK multilingualism').

The attitudes towards Yakut as a dominant, or colonial, language with relatively high status were formed by language policies which were translated to the population via school education. Yakut schoolchildren of Andryushkino were not prevented from speaking their language either in the classroom or in the dorms, in contrast to Yukaghir, Even or Chukchi children. Thus, Andryushkino boarding school forced Yakut into a relatively dominant position.

At some point in the 1950s, the language of instruction in Andryushkino school became Russian, although the tradition of using Yakut in school communication was not broken immediately. The curves in Figure 3 show that Yakut's presence in linguistic repertoires decreased from 75% to 58% from 1980 to the present (see also the observation of Odé, 2013, who described Russian as being dominant in the school in Andryushkino in 2009).

In the Kolymaskoye school, the language of instruction was Russian, although there was an attempt to introduce Yakut in this role. Kolymaskoye followed the model of Plakhino, a nearby village where previously people from smaller locations studied. We recorded an illustrative memory of a consultant about his father, who wanted to continue his education in the 9-years-school in Plakhino after the Khara-Tala 7-years-school and was unable to study because he did not have a command of Russian. As mentioned above, Kolymaskoye is a village with a predominantly Chukchi population, Chukchi students and people of mixed origin (Chukchi/Yukaghir, Chukchi/Even) used Chukchi to communicate in the dorms, and even Yakuts of Kolymaskoye passively acquired Chukchi. However, communication in Chukchi in the school building was labeled as 'impolite' by school teachers: 'speak Russian when non-Chukchi people are around' was the typical instruction.

The situations in the schools of Andryushkino and Kolymaskoye are similar because both languages, Yakut in Andryushkino and Chukchi in Kolymaskoye, were used for interethnic communication among the indigenous people. This led to a certain imbalance in language use: as a language of communication indigenous people would learn Yakut in Andryushkino and Chukchi in Kolymaskoye rather than any other indigenous language. However, for Chukchi this was only due to the larger number of speakers in the dorms – unlike Yakut in Andryushkino it was never present officially in a classroom.

At the same time, both schools integrated children to new social networks which included many people of different ethnicities. Vakhtin (2001, pp. 144–146, 156) shows that in the multiethnic

settings of the boarding schools, youngsters easily (but often passively) acquired their classmates' languages. He also shows that Chukchis who came to study in the Kolymskoye boarding school passively acquired Even, Yakut and Yukaghir. Likewise, Yakuts studying in Andryushkino passively acquired Even and Yukaghir. The school was a place where several multilingual repertoires appeared. It also provided a domain for multilingual communication for a considerable period.

This situation can be compared with settings in the Torres and Banks Islands in Vanuatu (François, 2012, pp. 101–103). Describing the impact of boarding schools on the linguistic repertoires of the students, François (2012, p. 102) writes: '...the languages which most affect the children's linguistic practices – and thus bear impact on the future of linguistic diversity – are not so much those of formal education, but rather the vernacular languages spoken among their same-aged peers'. Another case is described by Fleming (2016, pp. 20–22) for the Eastern Tucanoan groups in Brazil, where the boarding schools played an important role for switching to Tucano, another minority language, rather than to Portuguese, the colonial language.

Linguistic outcome of Lower Kolyma multilingualism

Below we present a brief overview of linguistic traits indicative of the contacts among Even, Yukaghir and Chukchi. We pay special attention to mutual contact effects of these minority languages and consider the influence of Yakut, which is especially striking in Even and Yukaghir.⁴

Even, a Northern Tungusic language, is very scattered dialectally. LK Even belongs to the Western dialectal group, being closely related to Allaikha and Ust'-Yana Even, which are spread further to the west along the Arctic coast. Like the other western Even dialects (Malchukov, 2006), Kolyma Even is heavily influenced by Yakut. It has several lexical borrowings, including numerous and frequent discourse particles. Some examples of Lower Kolyma words borrowed from Yakut are: *araj* 'suddenly', *buolla* 'surely', *uonna* 'and', *je* 'well, finally', *dayani* 'also', adverbs *nar* 'always', *bukatin* 'completely', *bayar* 'perhaps' (the LK Even data come from our own field notes, Yakut data are from Sleptsov, 1972).⁵ However, in general borrowings are not restricted to particular lexical domains or word classes (Malchukov, 2003) and undergo phonetic, grammatical and semantic adaptation (Sharina & Kuz'mina, 2018, p. 110). Note that several words of Russian (Rus.) origin were borrowed into Even (Ev.) via Yakut (Yak.), for example Ev. *kilas* < Yak. *kilas* < Rus. *klass* 'class'. There are also a few cases of morphological borrowings and two debitive constructions based on a Yakut pattern (the original Even debitive mood is not used in LK Even). Changes show that Evens must have had a good command of both Even and Yakut to be able to match the grammatical structures and transmit the pattern.

Moreover, LK Even has a considerable amount of lexical borrowings from Tundra Yukaghir (T. Yuk). They belong to various semantic domains, for example kinship terminology: LK Even < T. Yuk. *emje* 'younger sibling', LK Ev. < T. Yuk. *epie* 'older sister of the father', LK Ev. < T. Yuk. *ewužo* 'aunt, the older cousin of the father'; transportation terms: LK Ev. *ulje* < T. Yuk. *öljeŋ, ölje* 'boat', as well as several basic lexemes, like LK Ev. < T. Yuk. *amun* 'bone'. The term for 'water' is borrowed from Kolyma Yukaghir: Ev. *ondi* 'water' < Kol. Yuk. *önde* 'mountain stream' (see Nikolaeva, 2006, pp. 329–330). Even has very few lexemes borrowed from Chukchi: Even *jattiek* 'light Chukchi sledge made of willow' < Chukchi *jaatak* 'sledge for transporting children', Even *kenčik* 'a whip made of two willow sticks and a rope' < LK Chukchi *kenčiq* 'whip' (Danilova, 1991, p. 65). It looks like the lexemes were borrowed together with the culture-specific objects that these lexemes refer to.

Tundra Yukaghir together with nearly extinct Kolyma Yukaghir constitute Yukaghir, a linguistic isolate. Similarly to Even, Yukaghir also has a number of Yakut lexical borrowings, which include various agricultural terms and some adverbs and conjunctions (Mordashova et al., 2019). Just as in

Even, in Tundra Yukaghir there are Russian loanwords which are borrowed via Yakut, e.g. T. Yuk. *saakar* < Yak. *saaxar* < Rus. 'saxar 'sugar'; T. Yuk. *kiliep* < Yak. *kiliep* < Rus. *xleb* [xl'ep] 'bread'. This is a signal of a stronger Yakut influence in the area before Russian became dominant; see the section on 'Explaining the dynamic trends of LK multilingualism'.

Tundra Yukaghir, in turn, also has numerous borrowings from Even, a Tungusic language. Kurilova (2016) counts 71 lexical Tungusic borrowing in Tundra Yukaghir. These borrowings are found in the semantic domains of kinship, reindeer herding, clothing and others. Interestingly, the kinship terms borrowed from Even are very basic ones: T. Yuk. *enye* < Ev. *enin* 'mother', T. Yuk. *ama*: < Ev. *ama(n)* 'father', T. Yuk. *aka*: < Ev. *aka(n)* 'elder brother', T. Yuk. *ekya* < Ev. *eke(n)* 'elder sister'.⁶ Note that, cross-linguistically, the domain of kinship has been shown to be rather resistant to borrowing (see Tadmor, 2009, p. 64).

The influence of Chukchi on Yukaghir is minimal: we are only aware of two borrowed lexical items, namely T. Yuk. *katka* 'axe' < Chukchi *yatte* 'adze' and T. Yuk. *awia*: 'yesterday' < Chukchi *aiwe* 'yesterday'.

Chukchi, which belongs to the Chukotko-Kamchatkan language family, has very little dialectal variation. In our data, we see minimal traces of contact-induced changes in Chukchi. We discovered one Yukaghir fish name borrowed into Chukchi: Chukchi *moqan* < T. Yuk. *muoha* 'white-fish'. Only one Chukchi speaker of Yukaghir origin used the Yakut modal particle *du*: in her speech.

To summarize, our data show that the linguistic outcomes of multilingualism are different for Chukchi, Yukaghir and Even, something which might be explained by different intensity and length of contact. Tundra Yukaghir and LK Even show similar processes: there are multiple lexical borrowings in Yukaghir from Even as well as in Even from Yukaghir. The borrowings include kinship lexicon and some basic vocabulary but are not confined to these domains. This perfectly matches our assumption about Even/Yukaghir bilingualism based on historical and ethnographic data. Both languages have undergone influence from Yakut, but more so Even than Yukaghir; compare the proximity of Even/Yukaghir and Yakut settlements at the turn of the 20th century (see 'Explaining the dynamic trends of LK multilingualism', above). The role of LK Chukchi in contact influence is the least: the direction of the scarce lexical borrowing is mostly from Chukchi to Even or Yukaghir. Chukchi data do not reveal a considerable influence from Yakut either. This is in line with the fact that Chukchis were newcomers in the LK region, and their traditional economy forced them to follow typical nomadic routes which did not often cross with those of Evens/Yukaghirs.

Discussion and conclusions

By the end of Soviet epoch, the population of the Lower Kolyma region formed a peculiar multilingual community. Being integrated into a single socioeconomic system by the quasi-socialist experiment, the ethnic groups in this area retained multilingualism rather than simply switching to Russian.

In this paper, we account for the spread of multilingualism that was first shown to exist by Gurvich (1952), still attested by Vakhtin in 1987 (Vakhtin, 2001), and also recorded by us in 2018. We show that most members of the LK community found it important to communicate to at least some extent in all five languages of the region in 1940 to 1980. Even in the 21st century, about 75% of respondents have some command of two, three or four languages, while the pentalingual repertoire is becoming more and more rare. Our findings also show another tendency in language use that is similar to the one reported in Vakhtin (1991, 2001): a significant increase in the use of Russian, replacing the indigenous languages of the region. The multilingualism situation prior to 1940 was reconstructed on the basis of historical sources and is supported by linguistic evidence of

long-standing contacts. There is historical and linguistic evidence of Even/Yukaghir and Even/Yukaghir/Yakut repertoires, with Yakut being the dominant language, which is explained by administrative and economic prevalence of Yakuts in the area and proved by the direction of borrowings (Yakut > Even, Yakut > Yukaghir). The role of Russians in the area does not seem to be significant prior to the construction of Andryushkino and Kolymskoye and the introduction of *kolkhoz* organization (some Russian borrowings first appeared in Yukaghir and Even via Yakut). Chukchi appeared in the region in the second half of the 19th century and did not seem to influence the other languages. Nevertheless, pentalingual language repertoires were sporadically recorded before 1940.

We show that a multilingual setting is not a static picture: the factors of time and location should be taken into account. One of the important characteristics of the LK setting is that at least two out of five languages change their status over the examined period. Yakut was a language of instruction from the end of 1930s to the early 1950s in Olyorinskiy *suktul* (Andryushkino) – and we observe that the number of speakers of Yakut increased before 1950 (see Figure 3). However, after the change of language of instruction to Russian, which was the consequence of changes in language policy towards the strengthening of the Russian language in indigenous communities (Forsyth, 1992, p. 316), the dominance of Russian increased. At the same time, the Yakut students at the boarding school were acquiring some passive knowledge of the minority languages. Starting from the second half of the 20th century, Yakut in the LK region became less dominant and moved towards the ‘small-scale’ configuration – though it still has a strong position in Yakutia, being, together with Russian, the official language of the republic. As for Chukchi, before the Soviet era it was generally included in linguistic repertoires of adult Evens and Yukaghirs who worked for Chukchis. The introduction of *kolkhozes* and establishment of multiethnic brigades (see ‘Explaining the dynamic trends of LK multilingualism’) put Chukchis in a position in which their language became one of the minority languages. The new economic situation caused them to acquire, usually passively, the languages of the neighbors, Evens and Yukaghirs, as well as the latter learning Chukchi if they became Kolymskoye residents.

In this study, we showed how external (administrative) actors contributed to the development of multilingualism. Evans (2017) proposes that large multilingual repertoires may have been the norm throughout the world before modern forms of political and economic domination arose. Indeed, before the Soviet times, many languages were used in the LK area. However, multilingual repertoires, presumably, were not very common, but rather sporadically distributed over the LK area, likely mostly depending on an individual’s age, gender, and occupation (see ‘Explaining the dynamic trends of LK multilingualism’). Thus, the external power of a new administration unintentionally created specific domains for communication of speakers of different languages. One of these domains was the boarding school dorms.

It seems that the multilingual setting on the whole provided support for minority languages of the region and actually contributed to language preservation. Unfortunately, the current general trend of shifting to Russian shows that the LK multilingual situation in the 20th century was a temporary stage that probably just precedes the loss of the indigenous languages.

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Natalia Aralova would like to specify that she worked on this paper while she was affiliated with the research lab Dynamique Du Langage (CNRS & Université de Lyon, France).

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Notes

1. See the decree on the status of the languages of the indigenous people in the Republic of Sakha (Yakutia): <http://docs.cntd.ru/document/802009186>.
2. The data were collected only in Kolymskoye (a Chukchi-dominated village), Cherskiy and Yakutsk. Data pertaining to Andryushkino were collected only from people who had moved from Andryushkino to Cherskiy, Yakutsk and Kolymskoye, or from Andryushkino residents who visited these localities on vacation, for a medical purpose and so on. We consider the data obtained by these consultants as highly reliable; the only problem is that the number of Andryushkino respondents is lower than Kolymskoye ones, which can influence the data with respect to the spread of Chukchi.
3. The data come from the website of the Federal Service of Statistics: <https://gks.ru/folder/11110/document/13282>.
4. For this sketch we use our field data (rather sparse recordings of LK Even and an extensive corpus of LK Chukchi) and other sources on these languages.
5. The standard orthography of Even, Yakut, Yukaghir and Yakut are based on the Cyrillic alphabet. Here and further on we use a transcription based on International Phonetic Alphabet (IPA) for our own field data (Even, Chukchi). For the linguistic data from the dictionaries, grammars and other sources, we use an IPA based transliteration to unify all the examples.
6. Hypothetically, these lexical items could have been borrowed in the vocative form from Even, since this form would not have a final *-n* and the final vowel would be long.

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