11 Evolving language contact and multilingualism in Northeastern Russia

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Despite the vastness and desolateness of northeastern Russia, the region has long been the site of repeated cultural contacts among different indigenous ethnic groups. Evidence of these contacts is present in similarities in the mythology and material culture of these groups, as well as, notably, the spread of certain economic practices such as reindeer herding in the tundra and whaling along the coast. We know, for example, that the Chukchis adopted reindeer herding from the Tungus people and later learned whaling from the Yupiks once they migrated to the coast.[1] Like other Turkic peoples, the Sakha originally exclusively practiced horse husbandry, before some northern Sakha took up fishing and reindeer herding, likely also due to contact with the Tungus.[2] Nevertheless, for centuries, the indigenous groups managed to preserve certain distinct cultural practices as well as their own languages.

The social ecology of this region, and Siberia more broadly, changed dramatically with the beginning of Russian colonization. Russian efforts were motivated primarily by the promise of resources in the vast wilderness to the east, particularly in the form of furs. These furs became a required tribute (yasak) to the tsar from the indigenous peoples of the region, who often abandoned their own sustenance hunting practices in favor of sable hunting in order to meet the ever-increasing demand among the Russian nobility. The result was not only the plundering of the ecological diversity of Siberia, but the complete disruption of the traditional economies of its residents.

Nevertheless, the "small peoples of the north," as they came to be called, were largely able to preserve their cultures and ways of life throughout the imperial period. The interruption of cultural transmission would not begin until the Soviet period, when authorities took painstaking efforts to reorganize the nomadic lifestyles of these peoples into something more "civilized." What the imperial and Soviet periods have in common is the conceptualization of the Russian northeast, and of its indigenous residents, as desperately in need of Russian oversight and care. As Slezkine notes, Russia's circumpolar peoples have been "seen as the most consistent antipodes of whatever it meant to be Russian:" as such, in their view it became necessary to adopt them into Russian society, not just to neutralize the threat they posed but also for their own good.[3]

This molding of the Siberian peoples into what Russian authorities imagined they should be—less backward and barbaric—is particularly apparent in the language policy of the Soviet period. Russians played a very direct role in shaping the Siberian indigenous languages into something that was more recognizable to them: standardized and written rather than simply oral (using a single Cyrillic alphabet to capture the unrelated languages' distinctive inventories of sounds). The initial efforts by Soviet scholars to create educational materials for languages that were easily acquired in childhood may have merely been well-intentioned paternalism—certainly, they were not as overtly destructive as later laws which would greatly restrict the use of these languages at all. Yet, the Soviets made it clear that these languages could not simply be let alone to exist as they were, and that at the very least they should be rendered secondary in a Russian-speaking society. In this effort, they were radically successful.

The societal effects of the loss of indigenous language diversity due to Russian colonization (and the subsequent push for industrialization and urbanization in the northeast) are examined by Grenoble in Chapter 10 of this volume. She notes that language shift not only profoundly threatens the preservation of indigenous cultures but also is tied intimately to the well-being of indigenous people and can serve as a predictor for quality of life. The work here investigates some of the cognitive effects that colonization produces among shifting speakers, to the extent that we can observe such effects via changes in the grammatical patterns of the languages as they are used by modern speakers. I focus on two Siberian languages, Sakha and Chukchi, arguing that the linguistic changes to these languages in the modern era are of a markedly different sort than the kind that can be reconstructed during their long, pre-colonial history.

Russian and Siberian contact in the linguistic context

Siberia and the Russian Far East have historically been fairly linguistically diverse, once comprising at least 40 distinct languages from nine different language families: Uralic, Turkic, Mongolic, Tungusic, Chukotko-Kamchatkan, Aleut-Inuit-Yupik, Ket, Nivkh, and Ainu.[4] This list does not include non-autochthonous languages that are presently spoken in the area, such as Slavic languages (Russian and, to a lesser extent, Ukrainian), Chinese, and Central Asian languages spoken by recent economic migrants to the Republic of Sakha. Most of the indigenous languages were still being spoken at the time Russians first arrived in Siberia in the seventeenth century; however, the situation has changed considerably within the last few decades, with many of the Siberian languages ceasing to be spoken in favor of Russian, which is economically and socially more dominant. Table 11.1 presents the number of self-reported speakers of the more populous indigenous languages of Siberia, across the entire country. Note that these numbers are likely to be inflated, as speakers tend to over-report their linguistic proficiency in categorical surveys or else conflate ethnicity with language.

Table 11.1 captures the linguistic dominance of Russian: almost all of the people surveyed by the mandatory census (99.4 percent) are at least bilingual in Russian, with the numbers being highest among younger generations. While multilingualism can be reconstructed among Siberians prior to Russian contact, the present situation represents a dramatic change in the linguistic ecology of the region: practices such as trade, exogamy, and conquest among the indigenous groups would certainly have promoted the adoption of new languages, but there has never before been a single, dominant ethnic group across the entire region.

Thomason and Kaufman first proposed that linguistic contact can be of two types: language maintenance or language shift.[6] These types are characterized by the outcome of contact between two or more speaker populations, where "contact" is simply defined as people interacting with one another's languages, whether by overhearing another language, learning to speak it at any level of proficiency, or even interacting with written forms of the language. In language maintenance, the languages continue to be spoken by their respective populations, with some speakers also acquiring the language of contact (resulting in bi-or multilingualism). In language shift, one of the languages in contact ceases to be spoken, because that group has either ceased to exist (in cases where the population disappears, such as due to disease or warfare), or more commonly, has adopted a more dominant language for social, political, or economic reasons. Multilingualism is also encountered in situations of language shift but it is unstable, with initial generations of speakers learning the dominant language but ultimately ceasing to transmit their original language to their children.

Studies of language contact are additionally interested in how the grammars, sound systems, and lexicons of languages are modified by multilingual

Table 11.1 Self-reported speakers of indigenous Siberian languages compared to Russian in 2010)[5]

Language	Number of Speakers (% of Respondents)
Russian	137,494,893 (99.4%)
Chukchi	5,096
Even	5,656
Evenki	4,802
Ket	213
Koryak	1,665
Nenets	21,926 (0.02%)
Nivkh	198
Yakut (Sakha)	450,140 (0.33%)
Yukaghir	370
Yupik	508

settings. Language maintenance and language shift can produce highly similar types of changes, though these changes often have different trajectories depending on the intensity of the contact between populations. In language maintenance scenarios where contact is superficial (such as trade or other transactional relations), the languages involved may be minimally affected, possibly adopting words or expressions from one another. As contact and the degree of bilingualism intensifies, we may start additionally to see grammatical changes (changes in syntax and morphology, i.e., the structure of sentences and words). In language shift, the types of changes that occur in the languages depends on the relative size of the shifting population, and how quickly the transition to the new language occurs. If shift occurs quickly, without intervening generations of bilingual speakers who are semi-proficient in their ancestral language, the language being lost may not exhibit any grammatical changes before it disappears. Similarly, if the shifting speakers quickly and adequately learn the dominant language, or if there are not that many shifting speakers relative to the number of people already using the dominant language, there will also be few grammatical changes in the dominant language.

The crux of this particular theory of linguistic contact is that the social ecology of the languages—who uses them with whom, and in which contexts—determines their fate, rather than any facts about the languages themselves.[7] Other theories of linguistic contact propose that aspects of the languages' grammars, such as the degree of similarity between the languages in contact or their relative complexity for second language learners, determine how likely they are to be adopted by new speakers and the types of changes that occur in the languages themselves. Such factors may indeed interact with sociopolitical factors; however, the latter are paramount in predicting whether a language will continue to be used in a certain setting.

As we will see in the case of northeastern Siberia, languages which were once dominant are now themselves giving way to Russian; this is entirely the result of ecological factors, not anything inherent in the structure of these languages. On the whole, the two main languages that are investigated in this work—Sakha and Chukchi—exhibited patterns consistent with a language maintenance scenario until about the 1950s. Since then, the situation has rapidly evolved into widespread language shift to Russian.

Investigating changes in language use in the Republic of Sakha and Chukotka

The research project described here[8] focuses on understanding changes in the ecologies of language use in two regions: the Republic of Sakha (Yakutia) and the Chukotka Autonomous Okrug (also simply called Chukotka). These two regions were selected in part because they present an interesting contrastive case study of two locally dominant languages: Sakha (Yakut) in the Republic of Sakha and Chukchi in Chukotka. Sakha is recognized as an administrative

language of Yakutia alongside Russian; however, Chukchi is not an official language of Chukotka. In addition to Sakha, Yukaghir (Uralic) and Tungusic languages (e.g., Even and Evenki) are spoken in the Republic. Yukaghir, Koryak (Chukotko-Kamchatkan), and Siberian Yupik (Aleut-Inuit-Yupik) are spoken in Chukotka.

It is readily apparent from census data that most speakers of these languages, with the exception of Sakha, are bilingual in Russian and that language shift is taking place. A major goal of the project is to determine which factors have led to language shift in certain situations and not others, and whether there are certain factors that promote the continued use of minority languages alongside more prestigious or more economically viable languages. For example, how has the transition from "traditional" ways of life (such as reindeer herding, hunting, fishing) to urbanization impacted the use of the indigenous languages? Additionally, while there is undeniably an overarching process of shift to Russian taking place, the interactions among the other languages have been less well-researched. Both Sakha and Chukchi have previously functioned as lingua francas in their respective regions, and there are still speakers (many of them older) who are multilingual, speaking their minority language in addition to Sakha/Chukchi and Russian.

Finally, the project also aims to examine the effects of the present contact situation on the structure of the languages as they are being used today, particularly in the domains of syntax and morphology. Language shift and the resulting decrease in proficiency of the average speaker has been shown to coincide with certain types of changes in the receding language. Commonly, the language shows signs of reduction and simplification: speakers have difficulty recalling how to use certain lexical items and grammatical constructions, particularly those not used in the dominant language, and simplify complicated (that is, irregular) morphological patterns.[9] The changes that occur in the receding language due to the effects of language loss differ from "healthy" language change (that is, changes that occur in a language that does not cease to be spoken) in their regularity. It is not the case that linguistic differences in the speech of shifting speakers are necessarily shared among the entire speech community, nor is it the case that the same speaker will consistently produce the same non-standard feature. The study described herein is therefore examining a system in flux: the changes we identify have only begun to appear among speakers of the languages, and may not ever become stable features of either Chukchi or Sakha as a whole.

The Sakha language in the Republic of Sakha

As I noted earlier, we have limited information about the population dynam-ics of northeastern Siberia prior to the arrival of Russian explorers in the seventeenth century. The origins of the Sakha people are still a matter of modern research—while they likely traveled north from the southern steppes, it is unclear when they arrived in the region that would become the Sakha Republic.[10] At the time of initial Russian contact, the Sakha had already established a presence around the northern bend of the Lena River (the area that is

now the city of Yakutsk). The Sakha language itself provides some clues about which other groups the speakers came into contact with before settling along the Lena River. While Sakha is unmistakably a Turkic language, it displays some differences from other Turkic languages that are likely due to Tungusic and Mongolic influence that predates Russian contact. Linguistic and genetic data also suggest that the Sakha assimilated Tungus, Samoyeds, and Yukaghirs in the region.[11] Contact between Sakha and Tungus peoples seems to have been particularly strong, as it produced the Dolgans, who speak a language very close to Sakha but with considerable Tungusic influence. (Forsyth claims that the Dolgans are actually Tungus with extensive Yakut admixture.)[12]

During the first two centuries of Russian contact, most of the existing Siberian languages continued to be robustly spoken (linguistic maintenance). A notable exception is Itelmen, or Kamchadal, which is distantly related to Chukchi and began to disappear long before other neighboring languages. Kamchatka, where most Itelmens lived, was subject to minimal control by the Russian imperial government, and as a result Itelmens suffered considerable abuse by local officials and Russian Cossacks.[13] Violence and epidemics took a large toll on the Itelmen population: by 1820, there were only 1900 Itelmens left in the region (down from 7000 a century prior), and by the end of the nineteenth century only 58 percent of Itelmens were monolingual, with complete shift to Russian having taken place in southern Kamchatka.

The Sakha language was exceptional in a different sense: perhaps in part because many Sakha were sedentary and had already developed agriculture and animal husbandry around the Lena River, their language was the sole Siberian language to take root in town life.[14] In other settlements in the region, Russian dominated daily and political life. Within Yakutsk, many Russians even adopted the Sakha language during the nineteenth century.[15] Although the Sakha resisted Russian conquest and the fur tax (yasak) that was imposed on them by the Russian government, they eventually displayed a willingness to coexist with the Russians. There was early miscegenation between the Russians and Sakha, and the Sakha were early adopters of Russian cultural practices, such as patronymics.[16]

Thus, despite the fact that Russians were firmly entrenched in Yakutsk during this time, the Sakha continued to be dominant both economically and linguistically: they were successful traders and the Sakha language became a lingua franca used by Tungus and Yukaghirs throughout eastern Siberia, from Yenisei to Sakhalin.[17]

Throughout the twentieth century the Sakha have successfully maintained their language, especially in comparison with other languages in the Republic, such as Even, Evenki, and Yukaghir. In the early twentieth century the Sakha were the largest ethnic group in Yakutia, and Sakha continued to function as a lingua franca. They also developed a robust body of literature despite several disruptive language reforms, including an overhaul of the orthography in 1939 and the beginning of compulsory education in Russian in 1938.

By the 1970s, Sakha continued to be well-maintained and remained the primary language of instruction in the first eight years of school, with textbooks

available in Sakha in technical subjects such as math, science, and history. However, during this period we start to see the minority indigenous languages of the region lose ground to Sakha. The 1979 Russian census indicated that:

> Out of 5763 Evens surveyed, only 44 percent claimed Even as their native language, while 53 percent claimed fluent command of Russian as either their first or second language and 70 percent said they spoke Sakha
> Out of 11,584 Evenkis in the Republic, 85 percent said Sakha was their native language, compared to only 11 percent who said it was Evenki
> Out of 525 Yukaghirs, 30 percent claimed Russian as their native language, and 23 percent claimed Sakha

Due to the fact that the Russian census requires individuals to claim just one ethnicity, this data likely does not capture many individuals with mixed Sakha heritage. (Children of mixed Sakha-indigenous marriages always chose to be registered as Sakha.) This may suggest that the Sakha language dominated within even ethnically homogenous families, or that few such families were to be found.

Based on our interviews with students of Even and Evenki heritage at the North-Eastern Federal University in Yakutsk, these trends have continued: in mixed Sakha-Even/Evenki families, children may learn Sakha but almost never learn Even or Evenki. This was also the case within the family of a Chukchi woman with whom we spoke in Yakutsk. While she herself did not speak Sakha, her husband and their children did, and their only shared language was Russian (that is, her children did not learn Chukchi).

Indeed, several speakers we interviewed in Yakutsk—including those who were ethnically Sakha and those who belonged to an indigenous minority group—expressed that Sakha is well-maintained, especially when compared to Yukaghir or the Tungusic languages. Chukchi is hardly spoken in the city of Yakutsk, and most Chukchi speakers within the Republic of Sakha live in settlements in the northeast, closer to Chukotka. Multilingualism in this region is quite high, with some speakers knowing as many as five languages.[18] These speakers pointed to the ubiquity of Sakha throughout the city—on signage, spoken by different age groups in the street—as well as to the availability of Sakha media (television and theater) and education. Some Sakha people we have spoken with, however, expressed reticence about these claims about the vitality of their language. Although primary education in the Sakha language is available in Yakutsk, there is limited space in these programs. Similarly, while there is much more television programming in Sakha than the minority languages, Russian unquestionably dominates the airwaves, particularly when it comes to children's programming.

Chukchi in the Republic of Sakha and Chukotka

It is generally believed that the Chukchis originated in the tundra west of the Anadyr River basin and eventually migrated to the northeast,[19] where the Russians first encountered them in 1644.[20] The Chukchis are generally divided into

two groups, that are distinct culturally and (to a lesser extent) linguistically: the tundra Chukchis, who were nomadic reindeer herders, and the maritime Chukchis, who lived along the coast and practiced fishing and whaling. Strong social ties were maintained between these two groups,[21] however the tundra Chukchis largely outnumbered the maritime Chukchis.[22] The two groups also differed in terms of the other ethnic populations they regularly had contact with: the tundra Chukchis had greater contact with Yukaghirs, while the maritime Chukchis had close ties with the Yupik people along the coast.[23]

At the time of initial Russian contact, the Chukchi people already dominated the Far North East economically. Dunn suggests this was because the Chukchis herded reindeer year-round and did not depend on supplementing their goods with hunting.[24] Chukchi became the lingua franca within the region,[25] due in part to this economic dominance as well as their practice of refusing to use other groups' languages in trade.[26] The Chukchis were also significant players in the whaling economy in the Bering Sea alongside the Russians, Americans, and Yupiks. The coastal economic situation was conducive to considerable language mixing. Using written records, De Reuse reconstructs the existence of several distinct trade jargons used in this coastal setting and aboard whaling vessels.[27] These include jargons based on Chukchi (which even the Americans learned),[28] ones based on English (which would have been used mainly within ship crews),[29] and ones based on Yupik, which would have been heavily influenced by Chukchi.[30]

Even as the Russians encroached on the region, the Chukchis rapidly expanded into territory belonging to other groups, from the extreme northeast south along the coastline. They typically assimilated other Chukotkan peoples to the south, such as Koryaks, Alutors, and Kereks, who all spoke languages closely related to Chukchi. It is also clear that the Chukchis had already expanded into Yupik and Yukaghir territory. The Chukchis were already living alongside (and had likely also assimilate some) Yupiks at the time of Russian contact; some evidence for this comes from Chukchi place names of obviously Yupik origin:

Table 11.2 Chukchi place names with their Yupik etymologies[31]

Yupik	Chukchi
Imtuk	Imtun
Egheghaq	Regian
Ugriileq	Wugrel
Avan	Ivunmon
Qiwaaq	Khyuven
Tasiq	Techin
Ingleghnaq	Ilkegen
Ungaziq	Unil
Napaqutaq	Nepyakhut

Meanwhile, it is known that Chukchi expansion west and south into Yukaghir territory in the tundra continued for several centuries after Russians arrived in the Anadyr region—Russian officials even fielded complaints about Chukchi aggression from Yukaghirs, though they had little success in responding to them.[32] As the Chukchis moved into Yukaghir territory they assimilated many of them through intermarriage.[33] (These earlier patterns of cultural mixing are still very apparent to Chukchis and Yukaghirs today, who report that Yukaghirs in the early twentieth century often knew Chukchi better than their native language, and that many "Chukchi" speakers were actually ethnically Yukaghir.)

How Yukaghir and Chukchi may have impacted one another linguistically is presently an open question. The best-studied linguistic effects of the cultural mixing in Chukotka during this time are between Chukchi and Yupik, with most scholars agreeing that the effects of Chukchi on Yupik are greater than the reverse. The Yupik effects on Chukchi are mainly restricted to words the Chukchis borrowed for new animals they encountered in the coastal environment, as well as words for the new trades they picked up. Examples include puwreq 'beluga whale,'[34] kupren 'net' (from Yupik kuuvragh-), and menemen 'bait' (from managh-).[35] These borrowings appear to be restricted to the maritime variety of Chukchi—speakers of tundra varieties often do not recognize words of Yupik origin.[36]

Meanwhile, the effects of Chukchi on Yupik are more significant, and include borrowed words from a variety of categories, including (somewhat surprisingly) words for coastal flora and fauna, which would have replaced existing Yupik words. Yupik also extensively borrowed interjections and adverbs from Chukchi, such as the following:

Table 11.3 Particles borrowed into Yupik from Chukchi[37], [38]

Chukchi	Central Siberian Yupik	Gloss
qənwer	qɨnwam	'finally'
rəpet	rɨpatɬ	'even'
lureq	luraq	'probably'
enmec	ɨnmis	'already'
ewər	iwɨn	'if'
panena	paninaŋ	'after all'
weler	waran	'although'
iŋqun	inqun	'in order to'
ənqom	ɨnkam	'then, following that'
wətku	wɨtku	'if only'
qeciqun	qɨsiqun	'apparently'
wenləgi	wanlɨgi	'all the same'

As Comrie notes, the borrowing of these words is likely the catalyst for a grammatical change in Siberian Yupik compared to the related Yupik and Inuit languages spoken in North America: the American languages express adverbial relations such as these by adding morphology to the verb, not through the use of separate words.[39]

Some linguists have argued for much more significant structural effects in Chukchi due to Yupik influence; for example, Fortescue suggests that Chukchi developed ergative case (a special marker only for subjects of transitive verbs, but not subjects of intransitive verbs) due to this contact. However, any significant changes in Chukchi from Yupik are likely to be fairly recent (intensifying in the seventeenth century, when contact would have intensified), and are likely to be restricted to the maritime variety, so it is not clear whether the widespread pattern of ergative case should be attributed to Yupik influence.

Referring back to the possible categories of language contact described in the introduction, the historical situation involving Chukchi and its neighboring languages is largely a situation of language maintenance. The changes in Chukchi and Yupik are consistent with a situation where speakers of the two languages were in sustained contact, with one language (Chukchi) being more dominant than the other, but with both languages continuing to be spoken. Although there were certainly smaller communities of Yukaghirs, Yupiks, and other Chukotkans who shifted to speaking Chukchi when they were assimilated by Chukchi territorial expansion and intermarriage, irreversible loss of these languages does not begin until the twentieth century.

As we turn our attention to the effects of Russian on Chukchi, it is important to recognize that although the Chukchis, like the Sakha, were regionally dominant, the social ecology (especially with respect to Russians) of this extreme northeast region was rather different. The Chukchis strongly resisted Russian colonization and were among the only groups that never submitted to paying yasak to Russian authorities.[40] In fact, while many of the indigenous groups suffered tremendous population losses due to warfare and disease in the centuries following Russian contact, the Chukchi population flourished during the 18th century, their numbers increasing from 6000 to 8000–9000.[41] It is likely that their geographical isolation (as well as the difficulty in tracking a group that remained nomadic until the twentieth century) insulated them from Russian control and, in turn, the abusive practices that took a toll on the population of other ethnic groups in the north.

By the same token, however, the continued nomadic lifestyles of the Chukchis and a lack of centralized leadership likely contributed to their failure to establish a presence in town life and made their languages more susceptible to loss through rapid modernization under the Soviets. For these and a host of other historical reasons, the Chukchis and other peoples of the north would ultimately be organized into "autonomous regions" (okrugs/ oblasts) or designated as krais, which have less administrative power than republics such as Yakutia. This extends also to modern language policy, as the "republic" status allows for languages other than Russian to function as

official administrative languages in the region.[42] This difference in administrative designation also certainly goes a long way toward explaining the continued maintenance of Sakha relative to the other languages of the northeast.

The acceleration of language shift among Siberian indigenous groups begins with the introduction of problematic Soviet language policies and social restructuring in the first half of the twentieth century. The early Soviet attitude towards these groups can most generously be described as paternalistic, motivated by the perception of the northern peoples as backwards and in need of guidance to become civilized. During this early period (1917–1929) the goal of the Committee of the North (which consisted mainly of Soviet bureaucrats and some scholars) was ostensibly to encourage native autonomy;[43] there were some efforts during this time to encourage the creation of literary languages for the native peoples of the north so that they could be educated in their own languages.[44] However, all encouragement of autonomy (and recognition of the unique needs of different northern groups) vanished during the Stalin period: steps were taken to eliminate nomadism and the clan system of many indigenous groups. This system was replaced with forced reorganization into collectives (soviets), which seldom took the natives' own territorial designations into account.[45] Although both tundra and maritime Chukchis initially strongly resisted collectivization,[46] they were ultimately forcibly relocated into settlements throughout Chukotka during the period between 1953–1967.[47] Unsurprisingly, this is also the period when we start to see language shift among the Chukchis. Speakers born during this period are regarded by our consultants to be the last generation of fully fluent speakers.

The greatest disruption to linguistic and cultural transmission was the notorious internat boarding school system, in which indigenous children were removed from their families for most of the year to be educated in Russian. In many cases, children in these schools were forbidden from speaking their native languages (or even eating native foods). Although the indigenous people received an education at these schools, they were also taught that their culture (including their traditional ways of life) was not worth acquiring, and as a result failed to master their native languages and skills.[48] The internat system also had the inadvertent effect of escalating urbanization: young people could not participate in the traditional economies of the villages and relocated to cities in increasing numbers in the 1980s and 1990s. During Dunn's research in Anadyr (the most populous city in Chukotka) in the 1990s, he noted that it was rare to hear Chukchi spoken, even among older speakers who knew the language. However, language retention at this time seemed to be better in villages, where it was still possible to find fluent speakers as young as 30.[49] A recent, comprehensive survey of Chukchi language use in Chukotka and the Sakha Republic discovered one fluent speaker born in 1984 (35 years old at the time of publication), who, as expected, is a nomadic herdswoman.[50] Otherwise, this survey found that speakers who are presently in their 30s and 40s tend to have only a passive understanding of the language. This is consistent with the perception among our Chukchi consultants in Sakha, who claimed that the

youngest proficient speakers would likely be in their 50s and older. They also echoed the claims about expedited language loss in cities, mentioning that the best remaining younger speakers are likely to be those who still live in villages and occasionally herd with their parents.[51]

Overall, this presents a bleak outlook for the vitality of the Chukchi language and points to a process of language shift that is well underway, with children no longer fully acquiring it[52]. Chukchi is presently considered an endangered (or at least a threatened) language[53], meaning that it is at risk of being lost in the near feature without serious intervention. This has also meant that we have had to approach our study of Chukchi and Sakha slightly differently. It is still relatively easy to locate proficient speakers of Sakha, even in cities, and therefore possible to collect data from a large group of participants. However, it is not possible to perform any kind of broad statistical analysis on Chukchi because there are simply not enough speakers who have sufficient knowledge of the language to participate in the experiment tasks.

The following section outlines the particular methodology that was used to assess Sakha and Chukchi language use and to elicit speech in a controlled setting.

Methodology

Research is planned at a number of field sites in the Republic of Sakha and Chukotka to contrast urban and rural settings. To date, pilot studies of Sakha and Chukchi have been carried out in Yakutsk, the capital of the Republic of Sakha and the largest growing city in the region,[54] with a population of approximately 270,000 as of 2010.[55]

The methodology used was designed to target two areas: language use and the social/ecological factors that condition it, and any structural changes in the languages. For the first goal, we administered a formal questionnaire that asked participants about their linguistic background: which languages they speak, which languages members of their immediate and extended family speak, and in which contexts and with which interlocutors they use the languages. Participants were also asked to assess their own proficiency in the languages they spoke (how well they could read, write, speak, and understand the language). The questionnaire also collected biographical information about the participants and their immediate family: dates of birth, hometowns, and education levels. In some cases, it was necessary to conduct more informal oral interviews, particularly with older speakers who would have difficulty reading and concentrating on a lengthy document. In other cases, we opted not to use a questionnaire in order to preserve our consultants' trust: as I discuss in the following sections, the minority populations of Siberia have a fraught history with the Russian government and are often understandably wary of filling out formal documents. In these cases, the speakers were able to guide the discussion and described specific experiences with their languages.

The research participants were also asked to complete two types of tasks in order for us to collect examples of their speech: a structured experiment where

they were given pictures and words and asked to construct sentences using those words, and a more freeform activity where they were shown a series of pictures and asked to tell a story. In the experiment, the words were given in a recognizable dictionary citation form: speakers were expected to put the words in the appropriate order and use the appropriate inflectional morphology (i.e., modifying the citation forms for the correct case, tense, and 3rd person agreement). Table 11.4 gives an example of one of the stimuli; these words were provided to participants alongside a picture of a man extending a fish to a young boy.

In Sakha, the expected typical word order for a declarative sentence is Subject – Object – Verb; however in Russian it is Subject – Verb – Object. If the word order in Sakha has changed due to bilingualism with Russian, we expect to see instances of the verb occurring in the second position in the sentence. The situation is slightly more complex in Chukchi: unlike English, for example, Chukchi has a relatively free word order, where words in different roles can occur anywhere in the sentence. It is also possible to exclude either the subject or the object because they are otherwise indicated in the form of the verb. Russian-like sentences with Subject – Verb – Object order are fairly rare in naturalistic speech;[56] thus, although such sentences are possible, a greater incidence of them among Chukchi speakers who are bilingual in Russian may point to structural changes due to Russian influence.

In the story task, the sequence of images shows a boy and his dog going fishing; the boy falls out of his boat and the dog pulls him to safety. All of the Sakha participants were given this task, and our primary Chukchi consultant also told two longer narratives based on two children's books: one about the friendship between a little girl and a bear, and the other about a lost polar bear.

The following two sections summarize our findings for the two case studies. First, I discuss the results of the Sakha pilot study and present evidence of early structural changes due to language shift. Then I describe the results of the Chukchi study, and finally I contrast the two and describe how they inform an ecological approach to the study of language contact.

Study results: Sakha

The results of our formal questionnaire and linguistic experiment confirm that there is reason to think that the current status of Sakha is unstable, and that we may be seeing the early signs of language shift among young, urban

Table 11.4 Example of experimental stimuli

Sakha words	Chukchi words
bier 'to give'	pelak 'to leave'
balɯk 'fish (nominative)'	əneen 'fish (absolutive)'
er 'man (nominative)'	ətləgən 'father (absolutive)'
uol 'boy(nominative)'	ekək 'son (absolutive)'

speakers. This investigation was conducted with 30 students at the North-Eastern Federal University in Yakutsk, all of whom identified as ethnic Sakha. The students had grown up in different parts of the Republic, but all of them spoke proficient Russian and did not have trouble interacting with the researchers in Russian. (This is unsurprising, as education at the university level in Sakha is conducted in Russian. A future goal of the project is to replicate these tasks with a more diverse pool of participants.)

The proficiency self-assessment revealed that although Sakha is still quite robust among this age group (19–24), a number of the speakers in our sample did not believe themselves to be fully fluent in the language. Of the 30 students surveyed, two spoke no Sakha at all (and only knew Russian). Two out of the 28 students who did claim to speak Sakha said they experienced some difficulty with the language, and five said they were only able to speak but could not read or write. In comparison, all 30 speakers spoke Russian, with only one expressing any difficulty with Russian.

The primary domain for Sakha use among these speakers was at home with family (especially grandparents), although many also said they used the language with friends and throughout daily life in the city. Meanwhile, Russian was the dominant language at the university and online, particularly in interactive spaces such as online gaming. Some information about tendencies in mixed families also emerged from the questionnaire data. In cases where only one parent spoke Sakha (and the other parent spoke either Russian only or Russian and Even/Evenki), the speaker was Russian-dominant or else knew very little Sakha. This represents a change compared to the pattern in the 1970s, where children in these families were very likely to learn Sakha.[57]

Some clear differences emerged in the responses to the questionnaire among the students who had grown up in Yakutsk compared to those who had grown up in less populated towns and villages. As expected, the speakers who had grown up in an urban setting were the least proficient and used Sakha in the fewest domains. Speakers from Yakutsk tended to acquire Russian and Sakha simultaneously from birth, whereas speakers who had grown up elsewhere usually only spoke Sakha until they started learning Russian in primary school (around age 7 or 8).

In general, the students seemed to be good at gauging their own proficiency—that is, the students who expressed some doubts about their Sakha ability were the ones who were most likely to make errors in their speech when they performed the two research tasks. Some speakers did in fact display nonstandard word order in their speech: instead of the expected Sub-ject – Object – Verb order, they produced the more Russian-seeming Subject – Verb – Object order. There were also occasional errors in inflectional mor-phology, with speakers producing the wrong noun case or the wrong form of the verb. Typically, these forms lacked the necessary additional morphology to trigger a change in meaning: speakers were simply reading from the list of words we had provided them. Both of these types of errors are present in the following sentence:

(1) ɟaxtar oŋoror kɯɯs tʃaj
woman (nom.) makes girl (nom.) tea
Intended meaning: 'The woman makes tea for the girl'

The underlined word, the verb, is in the wrong position in the sentence (we expect it at the very end). The bolded noun has been given in its uninflected (nominative) form; however, the nominative should only be used for the subject of the verb, not the indirect object. The expected form of this sentence is:

(2) ɟaxtar kɯɯska tʃej oŋoror
woman (nom.) girl (dat.) tea makes
'The woman makes tea for the girl.'

Note that the verb is at the end, and the word 'girl' is now in the dative case (indicated through the appending of -ka).

Overall, however, dysfluencies such as these were rare among these speakers, suggesting that the grammatical systems of these speakers are still intact and we are not yet seeing significant contact-induced change due to Russian influence or major linguistic loss due to shift.

Study results: Chukchi

Our pilot study focused on surveying ethnic Chukchis living in Yakutsk and, when possible, carrying out the same tasks from our work with Sakha speakers. I am aware of fewer than a dozen Chukchis living in the city and have informally interviewed four speakers. (All of these speakers were much older than the Sakha students and since there was a possibility that our work would address sensitive topics, it did not seem appropriate to administer a formal questionnaire.) So far, only one of these speakers has participated in the linguistic tasks—this speaker is fully fluent and spoke Chukchi at home when she was growing up, and later specialized in Chukchi at university. Another of these speakers was an elderly woman who was also completely fluent and had also received formal Chukchi education. The other two speakers self-identified as less proficient: one speaker, the daughter of the elderly woman, is currently learning Chukchi as a second language in adulthood, and the other has not spoken much since childhood, though she still tries to read in Chukchi.

All of the speakers are acutely aware of the fact that the Chukchi language is disappearing, and lament that the interest in documenting and preserving the language (among both foreign linguists and ethnic Chukchis) developed so late. Despite this growing interest, our consultants are not optimistic about the future of their language and point to numerous obstacles to using Chukchi on a regular basis. A major issue in Chukchi language use is the lack of a speech community, especially in Yakutsk. Some speakers attempt to practice Chukchi through participation in large WhatsApp group chats; however, it

seems that there is little actual conversation happening in these groups. One of our participants said that the group functions more to exchange cultural media, such as videos or news articles, and Chukchi language use does not usually go beyond talking about the weather. Language ideology—how speakers feel about the status and value of the languages in the local ecology—also emerged as a significant theme in our interviews. While speakers might believe that Chukchi is an important part of their culture, they do not think it is practical to devote time to studying it as a second language over more economically beneficial languages such as English.

The linguistic changes we expect to encounter in this type of situation are significant: all speakers of Chukchi, regardless of ability, likely also speak Russian to an extent, and for most speakers Russian is their dominant language. Thus, we expect even the fluent speakers to have some Russian influence in their speech, and we expect the less proficient speakers to have significant errors or gaps in their grammatical systems.

The fluent speaker who participated in our linguistic tasks did not show signs of major, systemic changes across the two main dimensions we considered in our Sakha study: word order and case marking. For example, throughout ten minutes of uninterrupted speech (while telling the girl and bear story), the speaker demonstrated a variety of word orders, as expected, and had a moderate preference for placing the verb at the end of a sentence. She did not have a particularly high rate of Subject – Verb – Object sentences, which is what we had predicted would be the case under Russian influence. The speaker also consistently (and correctly) used different case forms throughout the story. These results do not necessarily mean that there have been no contact-based changes in her speech, but may mean that potential changes are more subtle or sporadic, or affect different aspects of her language.

It is worth noting that there were patterns in this speaker's language that illustrate another typical dimension of language shift: problems that arise for fluent speakers who do not have a community with which to practice their language. The process of losing or forgetting language across a speaker's lifetime, called attrition, can often produce similar effects on grammatical structure as never having fully learned the language.[58] While this Chukchi speaker did not have any trouble producing full sentences, she would occasionally make corrections to things she had said or have difficulty remembering specific nouns or verbs. One strategy the speaker had when she could not remember a verb was to use the "pro-verb" in Chukchi. In the same way that one can substitute a pronoun for a noun, the Chukchi pro-verb req- is used in place of a verb and means "did so."[59] While technically grammatical, the use of this verb is not informative unless discussing a known activity. For the following sentence, for example, the speaker later supplied the verb she had meant to use (mənumekewənet 'I will gather them'):

(3) am opopə cinit əmelʾo mənreqewənet
well okay myself all I.will.do.so.to.them
'Well okay, I will do it to all of them myself'

These tendencies do not mean that the speaker's grammatical system has actually changed. Attrition is distinct from errors due to incomplete learning of a language in that speakers should be able to recover features of the lan-guage they have lost, with enough practice. However, this type of phenom-enon illustrates that linguistic loss can occur even among fully proficient speakers in situations of language shift. This is a particularly problematic issue for linguists who document endangered languages with the goal of revi-talizing them (that is, teaching them to new generations of speakers and establishing a new speech community), as these efforts often come when there are only a few elderly speakers remaining.

Conclusion

Sakha and Chukchi are two languages which were lingua francas in the years leading up to and following the arrival of Russians in Siberia. However, these languages have had dramatically different outcomes in the modern era. Although Sakha may presently be under threat from Russian in cities, the language is still robustly spoken throughout the Sakha Republic. The same cannot be said of Chukchi, whose most fluent speakers are over the age of 30. While children outside of major cities such as Yakutsk speak Sakha as their primary language until they go to school, this does not appear to be the case for Chukchi children except when they are involved in traditional cultural activities such as reindeer herding, hunting, and fishing.

Despite the one-time dominance of both languages, it is clear that historical factors have also contributed to the modern differences in retention between Chukchi and Sakha. The Sakha became a sedentary group with a centralized population much earlier than the Chukchis, who remained scattered across a wide geographic area. The Sakha were also able to become a fixture of town life at a time when Chukchis remained largely nomadic, passing through settlements such as Anadyrsk to trade or else to raid them. During the Soviet period, the Sakha were allowed to rear their own children, while Chukchi children were removed from their parents and educated in boarding schools, where they received no instruction (and were often prohibited from) speaking their native language.

The two groups also differ in terms of language standardization: the Sakha were able to play a direct role in the development of their orthography and a shared literary language, which is still used extensively. In comparison, the Chukchi literary language was developed by Russian scholars and has not been adopted by non-educated speakers.[60] Furthermore, although claims about dialectal variation in Chukchi are often dismissed by researchers, several of our consultants have reported finding the literary language inaccessible to them because it differs dramatically from how they speak on a day-to-day basis (the literary language is largely based on the maritime variety of Chukchi, spoken along the coast in Chukotka, while our speakers were tundra Chukchis mainly from the Kolymskoe region of Yakutia). These facts further

reduce speakers' ability to engage with an already limited body of literature. Finally, the Chukchi language has no special status in Chukotka like Sakha does in Yakutia; there is therefore even less incentive to teach and master Chukchi.

It may be valuable to consider these two languages in light of their differing treatment under Russian colonialism and, indeed, how the speakers of each would have figured in the Russian imagination. The Sakha were part of a settled society that was somewhat familiar to Russians compared to the nomadic Chukchis who fiercely resisted all semblance of Russian culture. Restricting native language use has long been a tool of colonization, not merely to repress native identity and culture but to fundamentally alter the subjugated people's values and relationship to history and the world.[61] By suppressing the Chukchi language, perhaps Russian authorities sought to do what they failed to through the use of physical force: assimilate the Chukchis into Russian society.

These two case studies also affirm that a social approach to the study of language contact and bilingualism is essential in understanding the linguistic variation and change that results from these scenarios. The stability of a language is largely a product of the local ecology and is subject to change. Even if that language is a lingua franca, its dominance is drawn from the political or economic dominance of its speaker group. As these power dynamics evolve, so too can the status of the language.[62] Political restructuring under Russian governance and the political advantages afforded by knowledge of Russian have been the main contributing factors in the reduced status of these languages, rather than any intrinsic facts about the languages themselves. The relative linguistic complexity of the languages, for example, does not account for changes in the rates of their use. Chukchi might be considered more complex from a morphological standpoint (as a polysynthetic language, it encodes sentence meaning through many morphemes in a single word, rather than separate words); however, speakers of comparatively simpler languages, such as English, were able and willing to learn it when the Chukchi people were economically eminent.

So far the discussion has presented a somewhat dire prognosis for these languages, especially Chukchi. It is important to note that the two situations we have considered are still in flux. Possible language shift in Sakha is still in a nascent form and only appears to be a threat in urban areas. Language shift in Chukchi has not yet progressed to an irreversible stage, as there are still several generations of speakers for young learners to interact with if given the opportunity. Excepting a 2019 study of Chukchi language use, much of the information about the status of the Chukchi language within Chukotka is almost 20 years old, and the current situation may be more promising than in Sakha, where the population of Chukchis is considerably smaller.[63] (In Chukotka, there is some primary school education available in Chukchi, as well as journalism and some television programming.) It is possible that the cultural awakening among the Chukchis might have the effect of promoting language learning and reversing the linguistic and psychological results of Russian colonization. This is a question that we must leave for future inquiry.

Notes

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