Russian in contact with Southern Tungusic languages: Evidence from the Contact Russian Corpus of Northern Siberia and the Russian Far East

1. Introduction

The paper presents an overview of the Russian language variety used by bilingual speakers of Nanai and Ulch (Southern Tungusic, Russian Far East). The first aim of the paper is descriptive: to give a consistent survey on the language variety that has not been documented yet. The second aim is practical: to test the corpus of this variety which is being created now and especially the system of annotation used in this corpus. The third aim is theoretical: to distinguish between different types of “peculiarities” attested in the variety and to prove (or disprove) their contact nature.

1.1. Nanaic languages and their speakers: general information

I use the term Nanaic languages for the sub-group of closely-related Tungusic lects² spoken in the Russian Far East (Khabarovsk Krai, Primorsky Krai, Sakhalin) and in China: Amur dialects of Nanai, Kur-Urmi, Bikin Nanai, Ulch, Uilta, Kilen, and Hedzhe. All the Nanaic varieties spoken in Russian territory are in contact with the Russian language; all of them are endangered to a greater or lesser extent. All (or almost all) speakers are bilingual. All speakers are of the older generation, at least for the majority of the lects. There are 1347 speakers of Nanai (including Bikin Nanai and Kur-Urmi), 11% of the Nanai ethnic group, and 154 speakers of Ulch, 6% of the Ulch ethnic group (Census 2010, presumably overestimated).

In the paper, I analyze the data from speakers of different Amur Nanai dialects (mainly Naikhin Nanai and Gorin Nanai) and Ulch, see Appendix 1. The term “Nanaic Russian” is used in the paper with reference to their Russian speech.

1.2. The data

The data used in the study come from the Contact Russian Corpus of Northern Siberia and the Russian Far East³. This is a transcribed and annotated collection of oral spontaneous Russian speech of the bilingual speakers of indigenous languages of the area (Samoyedic, Tungusic, Chukotko-Kamchatican). The subcorpus of Nanaic Russian contains ca. 7.5 hours of transcribed texts (see Appendix 1). These texts are a by-product of the documentation projects on Nanai and Ulch (fieldtrips to Khabarovsk Krai and Primorsky Krai, 2011–2018). The whole audio collection of Russian texts contains ca. 50 hours of records⁴. Non-transcribed texts as well as field observations were also involved as auxiliary data. The majority of the texts are short spontaneous narratives and descriptions (folklore, biographic texts, ethnographic texts), some texts are everyday dialogues with the linguist. For some texts there are also parallel versions in Nanai / Ulch.

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² Some of them are traditionally estimated as dialects and some others are known as separate languages. However, there is no clear distinction.
³ The corpus is being created together with I. A. Khomchenkova and P. S. Pleshak within the larger project “Dynamics of language contact in the circumpolar region” (led by O. V. Khanina): iling-ran.ru/main/departments/typol_compare/circumpolar/eng. It is partly available online at: web-corpora.net/tsakorpus_russian_nonst/corpus.html. The Nanaic part was transcribed and annotated by the author.
⁴ The texts were collected by the author together with S. Oskolskaya. The audio collection is kept in the repository of the Russian Learner Corpus (web-corpora.net/RLC).
The transcription is made in ELAN in standard Russian orthography. A simplified system of pitch marks is used to reflect the intonation. Texts are also provided with a special manual annotation of the features that are not typical of Standard Russian. The features that are presumably of a contact nature are marked in the most consistent way possible, the regional, dialectal, and stylistic features are marked only if they are striking and undoubted.

The corpus data come from 19 speakers of Nanai and Ulch (17 speakers of Nanai, 2 speakers of Ulch) with different competence in Russian (see Appendix 1). The main portion of the data involved in the study comes from 4 speakers with the most non-standard Russian: vsg (Gorin Nanai), fna (Naikhin Nanai), oab (Ulch), spk (Ulch). All of the 4 speakers have a similar sociolinguistic background:

1) they are fluent speakers of Nanai / Ulch;
2) they are of the 1930s years of birthday;
3) they have no more than 3 classes of school education;
4) they had not been familiar with Russian before school;
5) nowadays, their dominant language (the language that they use in communication with younger generations) is Russian.

An interesting point is that the speakers of the older generation use both non-standard Russian, which was imperfectly acquired after Nanai / Ulch and was influenced by Nanai / Ulch, and non-standard Nanai / Ulch, which goes out of use and shows some evidence of language attrition. Cf. Grenoble (2010: 149) on a similar situation in Evenki.

All the examples used in the paper were taken from the corpus. The text sample collected from one of the speakers, namely vsg, is used in the study for some illustrative calculations because it is the largest (ca. 2 h.)

1.3. Nanaic Russian and other varieties of Russian

It is necessary to draw a border between the variety of Russian that will be discussed in the paper and some other language varieties and to clarify the status of Nanaic Russian.

1.3.1 Nanaic Russian vs. Russian Pidgins

The variety in question is not a pidgin. Its use is not restricted by any specific communicative situations and its lexicon and grammar are not extremely simplified. It does not reveal the striking features of the Far East Pidgin Russian as it was documented for the area (cf. the description in Perekhvalskaya 2008): for example, neither the use of frozen imperative-like verbal forms, such as делай and понимай, nor the use of possessive pronouns instead of personal ones, моя, твоя and others, is typical of the modern Nanaic Russian. However, it is very probable that the parents or the grandparents of my informants had spoken the Far East Pidgin Russian or some similar pidgin. It may be reasonable to estimate the speech of the oldest speakers of the sample under investigation as being something close to a mesolect, but for the speech of younger speakers it is clear that this is the Russian language with some contact-based features, not any form of a pidgin.

1.3.2 Nanaic Russian vs. contact-influenced monolingual Russian

Nanaic Russian shares some features with monolingual Russian varieties influenced by Tungusic languages, such as the dialect of Russkoje Ustje (cf. Krasovickiy & Sappok 2000). However, in the case of Nanaic Russian we deal with a more recent process: this is the speech of fluent speakers of Nanai and Ulch. Probably some contact-induced peculiarities under discussion penetrate also into the speech of a younger generation of the Tungusic population that does not

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1 I use further the terms L1 and native language with reference to Nanai and Ulch, however it is rather a technical use and the terms do not reflect the real situation.

2 Calculations based on the whole text sample are less informative in this case, because the sample is unbalanced and the inter-speaker variation is very high.
speak Nanai / Ulch any more or into the speech of Russian monolinguals of the area. Their speech was not consistently analyzed. Nevertheless, the general impression is that such “expansive” peculiarities are very few in number.

1.3.3 Nanaic Russian vs. regional monolingual Russian

The paper deals only with contact-induced features of the speech of bilinguals, and not with regional features which are not of a contact nature and which also occur in the speech of Russian monolinguals. In some cases, however, it is problematic to distinguish between these two types of features without further investigation of the regional monolingual speech, see below. An important point is that Russians who live in the villages where the data were collected are recent immigrants (since the 1930s and later) from very different parts of Russia, so there is no stable non-standard monolingual variety that would be in a permanent contact with Nanaic.

1.3.4 Nanaic Russian vs. regional non-monolingual Russian

For some regions one can postulate a stable conventionalized variety of Russian with evident contact-induced features, which is used by a wide range of bi- or multilinguals with different L1s. Such a situation presumably takes place e.g. in Daghestan (cf. Daniel et al. 2010; Daniel & Dobrushina 2013 on “Daghestanian Russian”). This is not the case of Nanaic Russian. The data collected in different places from speakers of different L1s are very similar; however, this is rather due to the similarity between their native languages or dialects, than due to the conventionalization of the variety as a regional variant of Russian. Nanaic Russian is not a stable conventionalized system and speakers do not realize it as a separate variety. For example, there are no speakers that can consciously switch from Standard Russian into Nanaic Russian, and vice versa. There is also a very wide continuum from the most non-standard Russian speech of older speakers of Nanaic to the near-standard Russian speech of younger speakers. The consistent description of this continuum was not the aim of the study. In this a brief overview, I concentrate mainly on the most striking features attested in the speech of older speakers. Not all features described in the paper are equally typical of all the speakers of the sample.

1.3.5 Nanaic Russian vs. Learners’ Russian

Nanaic Russian cannot be considered Learners’ Russian either. It may be not a conventionalized variety at the level of the community; however, it is quite stable at least at the idiolectal level. For a particular speaker it is his or her main everyday language which was acquired in childhood and which reveals no tendency to significantly change later.

1.3.6 Nanaic Russian and similar contact-influenced varieties

The data collected from the speakers of a small genetic sub-group of Tungusic lects were chosen for the description. However, I do not claim that the variety under discussion is clearly distinct from other Tungusic Russian varieties. For instance, the contact-induced features that were attested by M. Khasanova (2000) in Negidals’ Russian speech are very similar to those observed in our data. I do not claim that there are no differences between the patterns of Russian speech within our sample. In this paper, I mostly describe the features that are shared by speakers of all Nanaic lects under consideration and can be explained by reference to the features of Nanaic languages that are common for all of them1. In some special cases I comment the differences.

1.4. The analysis of peculiarities: some problems

The variety of Russian under consideration is non-standard in different senses:

a) it reveals the evidence of interference with Tungusic languages (features that have clear parallels in L1);

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1 In the paper, I refer mainly to Naikhin Nanai and give illustrative examples from this dialect because it is the best described.
b) it reveals the evidence of incomplete acquisition of Russian (features that have no clear parallels in L1);
c) it reveals regional or dialectal features (which are shared with monolingual speakers of the same area);
d) it reveals features that are typical of oral spontaneous speech (they might seem non-standard compared to written Russian monolingual speech; however, they are, in fact, not non-standard at all).

Only contact-induced features, namely, those of Type a) and Type b) are in focus of the study. However, in some cases it is problematic to distinguish them from Type c) and Type d). Another problem is to distinguish between Type a) and Type b). The problems will be demonstrated on some particular examples.

1.5. The structure of the paper
In the paper, I describe contact-induced features of Nanaic Russian at different levels: phonetics (Section 2), inflection (Section 3), derivation (Section 4), grammatical categories (Section 5), syntax (Section 6), lexicon (Section 7). The main focus is on grammar: Section 2 (on phonetics) and Section 7 (on lexicon) are very brief. In Section 8 I provide some quantitative corpus data to estimate the frequency of different features discussed in the paper. Section 9 contains brief concluding remarks.

2. Phonetics
The phonetic and phonological peculiarities of Nanaic Russian as well as non-standard intonation patterns require separate research. In this section, I give only a brief overview of the most striking ones. Most of the features under discussion (but not all of them) are clear cases of interference with Nanai and Ulch. Very similar features are described in detail for the unrelated variety of the dialect of Russkoje Ustje, which emerged under the influence of Northern Tungusic languages (Krasovickiy & Sappok 2000).

Phonetic peculiarities are the most stable ones in our sample: unlike morphosyntactic ones, they are attested across speakers of different ages and levels of education including those with a very standard morphosyntax.

2.1. The vowel system
The vowel inventory of Nanaic is quite close to that of Standard Russian. The main differences are the presence of long vowels and diphthongs and the presence of nasal vowels. However, long vowels and nasal vowels tend to go out of use (to different degrees in different Nanaic varieties), probably under Russian influence. They are not attested in Nanaic Russian either.

Very few peculiarities are attested in the vowel system of Nanaic Russian. The most striking feature is the use of [ɨ] instead of [i] after hard consonants, especially [r]: *riwa* ‘fish’.

Some speakers pronounce [o] in the unstressed position. Two alternative explanations can be proposed: 1) it is a feature of the “learned Russian” or 2) it is a non-contact feature, which comes from Russian dialects with the so called «okanye» pronunciation. The first explanation is more probable (see Section 1.3 on the absence of the permanent contact with Russian dialects).

2.2. The consonant system
There are three possible sources of peculiarities of the consonant inventory of Nanaic Russian: 1) the Russian consonant is absent in Nanaic; 2) the Russian consonant and the corresponding Nanaic one are slightly different; 3) the Russian consonant has more than one correlate in Nanaic.

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1 I give the examples in the “naive” Russian orthography, which is in fact used by some older speakers, to reflect the features under discussion. The transcriptions and the spectrograms for some of them are given in Appendix 2.
1. The Russian consonant is absent in Nanaic. This mismatch explains the following peculiarities of the Nanaic Russian:
   a) The use of the affricate [ʨ] instead of [ʧ]: чьпка (‘chopper’), чьп (‘tiger’), родичъ (‘parents’).
   b) The use of the closest Nanaic correlates [s] and [ʃ] or [ʃ] instead of the Russian hush consonants [s], [ɕ:] and [z] (хорошо ‘well’, пишет ‘writes’, дьзенина ‘woman’).
   A more interesting case is the use of [z] instead of the Russian [z] attested in the data (урозай ‘harvest’). The fact is that the consonant [z] itself is also absent in Nanai and Ulch, see below.
   c) The use of [s] instead of the affricate [ʦ] (сарп ‘king’).
   Two more Russian consonants are absent in the consonant inventories of Nanai and Ulch — [f] and [z]. However, there are no uses of any other consonants instead of them in our data. For [f] before vowels this fact can be explained by its infrequency in Russian (so we simply have not many uses in the sample). The standard or near-standard pronunciation of [z] is more intriguing.

2. The Russian consonant and the corresponding Nanaic one are slightly different.
   One of the most remarkable features of Nanaic Russian is the alveolar [l] instead of the dental one used in Standard Russian (мало ‘few’).

3. The Russian consonant has more than one correlate in Nanaic

In Ulch and Nanai there are the following consonants which are absent in Standard Russian: 1) the nasal [n] (along with [n] and [n]) which are also present in Standard Russian), 2) the uvular consonants [y], [q], [x] (along with [g], [k], [x] which are used also in Standard Russian). In Nanaic Russian, one might expect the use of the nasal [n] instead of [n] and the use of the uvular consonants instead of [g], [k], [x] in some contexts. Nevertheless, such cases are not attested in our data.

2.3. The word level

In Nanai and Ulch there are stronger restrictions a) on consonant clusters; b) on word-final consonants in comparison to Russian. There are also c) the low vs. high vowel harmony system ([i], [u], [o] vs. [e], [a], [a]) and d) some restrictions on word-initial consonants which are not typical of Russian. All these features are reflected in Nanaic Russian.

   a) In the clusters C-voiceless-fricative + C-stop the first consonant can be omitted (кусно ‘tasty’, пищильно instead of специльно ‘intentionally’)2. The clusters C-hard + C-soft can be realized as C-soft + V-front + C-soft with the assimilative palatalization and an epenthetic front vowel (земля instead of змея ‘snake’, птичка instead of птичка ‘little bird!’).
   b) A final unstressed vowel can appear in consonant-final nominal stems and in some verbal forms (this feature is more typical of Nanai Russian than of Ulch Russian): супа instead of суп ‘soup’, амбара instead of амбар ‘barn’, леспромхоз instead of леспромхоз ‘timber industry enterprise’, кости instead of кость ‘bone’, дати instead of дать ‘give’.
   c) Traces of vowel harmony: [u]-harmony is attested in such articulations as как будт ‘as if’, угуры ‘cucumbers’.

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1 The use of [ʥ] instead of [z] is not attested in our collection of modern Nanaic Russian speech. However, it is attested in ad-hoc loans from Russian in Ulch texts from the speakers of the previous generation (the 1900s y. of b.): cf. [ձимовъ] (rus. зимовъ).
2 See Section 6.2.1 on the differentiation between the phonetically based cluster simplification and the morpho-syntactically based preposition drop.
3 See the discussion on the phonological vs. morphological nature of this process in Section 3.
уругали instead of ругали 'they scolded'. In other initial r-syllables this process is not attested (e.g., the Russian рыба 'fish' is never pronounced with any initial vowel). The reason for such a restriction is unclear.

2.4. Prosody

2.4.1. Intonation

Some non-standard intonation patterns are attested in Nanaic Russian speech. For example, the phrasal accent can be on the head of the focused phrase, and not on the dependent, as in Standard Russian (e.g., the accent on the verb, not on the object in the verbal phrase). And vice versa, the accent can be on the dependent, not on the head as in Standard Russian (e.g., the accent on the attribute, not on the head noun in the noun phrase). Cf:

(1) А там [красивый девушки]темно гоняют их (spk) — expected: А там за ними гонятся [красивые девушки]

However, it is not clear whether such patterns come from Nanaic languages, because the prosody of these languages is underdescribed.

2.4.2. Vowel lengthening

Evaluative meanings can be expressed in Nanai and Ulch by vowel lengthening. In Standard Russian, this is also possible (большой-пребольшой 'very large'). Nevertheless, this process is not as regular and widespread as in Nanaic.

The lengthening with the evaluative function has not been consistently annotated in the corpus of non-standard Russian. However, the first impression is that it is more frequent in Nanaic Russian than in monolingual Russian.

(2) Жена хрустальный такая была (vsg)
(3) Она еще долго после этого еще жил (vsg)

This is one of the cases in which a special corpus-based investigation is necessary to attribute it with confidence to a contact-induced feature or to a simple feature of oral spoken Russian.

3. Inflection

Peculiarities of the inflection system demonstrate a clear case of the under-acquisition of the Russian grammar and cannot be treated as pattern borrowing. A more complicated problem here is to differentiate between the contact-induced under-acquisition and the variation within colloquial Russian. Another problem is to differentiate between morphophonological features and phonetic ones. The main peculiarities in the inflection system attested in our data are listed below.

3.1. Noun inflection

A noun can change its declension class along with its gender (on the non-standard gender assignment see Section 6.5 below). The following patterns are attested.

1) С-Ø masculine instead of С-a feminine:

(4) Щук-то вот такой большой ... большой ловят/ (vsg) — instead of щуку.

Such nouns only occur in our data in the nominative/accusative case. Other case forms typical of declension class 2 (с щуком, к щуку) are predicted but they are not found in the corpus.

2) С-Ø masculine instead of С-o neuter:

(5) Мы второи поколений (vsg) — instead of поколение

Such variants are attested only for o-unstressed and a-unstressed nouns with perceptually weak endings (поколений instead of поколение and not колес instead of колесо).

1 It is notable that V. A. Avrorin mentions this lengthening in his grammar of Nanai among derivational evaluative suffixes of adjectives (1961: 210).
3) C-Ø masculine (2 declension class) instead of C-Ø feminine (3 declension class):

(6) Перед смертью сказала старик (spk)

4) Ca-nouns instead of C-nouns masculine:

(7) полный амбара... (fna) — instead of амбар

This case is similar to the previous ones. However, there are some reasons to treat it as a phonetic feature rather than a morphological (morphophonological) one. First, such stems do not change the agreement pattern from masculine to feminine (which is typical of a-stems) (cf. (7)). Second, there is one more case of noun stem episethis in our data, which is formally parallel to this one and which cannot be explained as declension/gender shift, namely:

5) C-i (which are not attested in Standard Russian at all) instead of C-Ø feminine:

(8) Кости \ стала выходить тут (vsg) — instead of кость

Both cases 4) and 5) can be explained from the point of view of the Tungusic phonological system. Ca-forms and Ci-forms in question are generated probably in order to avoid final consonants, which are severely restricted in Nanai and Ulch (see Section 2.3).

The cases of stem-unification are attested for irregular stems:

(9) Матерь ругает (vsg) — instead of матерь
(10) Ты же с ней столько времени [i] (vsg) — instead of времени

Examples (9) and (10) show the border between the variation that is possible within the Standard Russian system (9) and clearer cases of the contact-induced under acquisition (10). Morphological rules of Standard Russian can be broken in the contact-influenced variety to a much greater extent. In colloquial Standard Russian the irregular stems ending in -мя can behave as undecidable ones (столько времени), but they are very unlikely to take the -u ending of 1 declension class which is typical of feminine nouns, not of neuter ones. Note, however, the phonetic difference between время and времени is very little.

3.2. Verb inflection

There are a lot of attested cases when speakers avoid irregularities in the verb paradigm. A more transparent form (11) can be used, a more productive present tense stem can be chosen (12).

(11) Перекрещу/ там всё (vsg) – instead of перекрещу
(12) Булочка резайте кусайте (vsg) – instead of режьте

Examples (11) and (12) are also possible in non-contact colloquial Russian. Such forms as in (13)–(15) are more remarkable:

(13) Никто не хочет (vsg) – instead of хочет
(14) И всё всё нормально стаёт (vsg) – instead of становится
(15) То от голода пухнет (vsg) – instead of пухнет

In data from one of the speakers (vsg), the forms which are equivalent (or similar to) Standard Russian imperatives occur in the indicative context:

(16) Они готовь готовили (vsg)
(17) Когда ... охотиться sal ходи/ охотиться (vsg)

Such forms were described as a feature of the Far East Pidgin Russian which had been spoken in the area and which is supposedly extinct now (cf. Perekhvalskaya 2008). It is interesting that such uses in vsg's speech are attested only in some texts containing a lot of code-switches with Nanai. It is probable that they appear when the speaker tries to switch from Russian to Nanai, but she switches to another language variety (which she probably remembers from the older generation) instead, namely, to the Far East Russian Pidgin Russian.

Sometimes the infinitive form is realized as -mu instead of -ты:

(18) А что вам соли / дать, да/? (vsg) — instead of дать

1 - Sal is the Nanai plural marker.
This feature is also attested in Russian dialects. However, in this variety of Russian it seems to be of a phonetic nature (cf. such forms as кости, смерти above and Section 2.3).

4. Derivation

4.1. Denominal derivation

Nouns can take diminutive and possessive affixes of some other declension/gender class that are typical in Standard Russian:

(19) Вот такая камушка/ (vsg) — instead of камушек
(20) Человечек/ такой — черный/ лохматый/ (spk) — instead of человечек
(21) Хочь такой брошорчики/ (oab) — instead of брошорка, брошорочка
(22) Робертан/ брат (vsg) — instead of Робертов

It is not clear if the initial noun in question changes its gender and / or its declension type before the derivational process (камень-masc, 2 decl. >камень-fem, 3 decl., cf. Section 3.1) or not.

The inappropriate choice of quasi-synonymous affixes also occurs in the data:

(23) Ой эта рыбная шкура досуда/ вот так, вот так\ (vsg) — instead of рыбь шкура

Examples (19)–(22) illustrate the under-acquisition, while example (24) below can be considered a rare case of pattern borrowing within the domain of derivation:

(24) Это\ ... кто косой глазаий/ кто кривой рот\ а кто лысый/ (spk) — instead of косоглазый

The standard model Adj-o-N-ый (косоглазый) is realized in (24) as косой глазаий. In Nanai and Ulch there is the productive comitative suffix -ku (ulc. -çu) ‘with N’. Being attached to the noun this suffix has the whole noun phrase in the scope (25). The exact same pattern is observed in (24) for [косой глаз]-ый.

(25) [mangu-ži xošin]-çu [aǐsín-ži xata]-çu bi margo
silver-INS skirt-INS gold-INS hunting.robe-INS be.PRS hero
‘... a hero with [a silver skirt], with [a golden robe]’ (Ulch, Sunik 1985: texts)

4.2. Deverbal derivation

There are two main types of mismatches in the verbal derivation attested in our data: the non-standard choice of the verbal prefix and the omission or the overuse of the reflexive -ся.

4.2.1. The non-standard choice of the verbal prefix

This feature can be interpreted as under-acquisition rather than a direct calque from Nanaic. Tungusic languages, including Nanai and Ulch, have a rich system of verbal derivation. However, 1) all derivational markers are suffixes, and not prefixes as in Russian; 2) Nanaic verbal suffixes express a range of aspectual, modal and valency-changing meanings, but, unlike Russian, they have no spatial meanings. So, they cannot be estimated as correlates of Russian prefixes either formally or semantically.

Different types of non-standard prefix choice occur in the data. An interesting fact is that prefix mismatches are attested not only across the most opaque uses of verbal prefixes (aspectual), but also across the most regular ones (spatial). In example (26) the semantics of the prefix is aspectual rather than spatial, so the choice of a particular one is more or less idiosyncratic. The non-standard choice of prefixes in this kind of contexts is the most expected.

(26) Ну... он сняла/ запанилла/ {жири} (vsg) — instead of растопила

In example (27), the meaning of the prefix is spatial; however, its use is not fully transparent:

(27) Сюда заклеит/ (vsg) — instead of наклеит, приклеит

Example (28) illustrates inappropriate prefix choice in a transparent spatial use, namely the use with motion verbs:

(28) Мать больница положила/ — она моей коровой\ выросла <СМЕХ> Молоком\ То дед\ унесет То я\ побегу унесу {ей молока} (vsg) — instead of принесет, принесу

Some examples reveal not a semantic under-acquisition of Russian prefixes, but a morphophonologically motivated under-acquisition. In (29), there is a mismatch between phonetically similar подо- и до-, in (30) без- is used instead of о-без-:
A stable pattern of using the prefix *s-* instead of *iz-* (as well as the use of the preposition *s* instead of the preposition *iz*) is attested in the corpus:

(31) Три года сполнались / тогда хоть кому скажи (vsg)
(32) Хоть десять лет она не смотрится (vsg)

The prefix *pere-* is sometimes realized as *pre-* (прекрестила, преборолись). These two features seem to be dialectal / regional rather than contact-induced.

4.2.2. Omission or overuse of the reflexive *-ся*

The postfix *-ся* can be omitted, as in (33), or, on the contrary, overgenerated, as in (34).

(33) У меня / ничего стесняться не надо (vsg) — instead of стесняться
(34) Они вот вот так школа / смотрю я самой первой (vsg) — instead of смотрю

There is no clear semantic correlate of *-ся* in Nanai and Ulch. However, there are two suffixes that have a partial semantic overlap with it, namely the decausative / modal passive *-p* and the reciprocal *-mači* (Avrorin 1961: 41–42). It is not clear how exactly this fact influences the use of *-ся* in Nanaic Russian. The preliminary observations are the following:

a) The omission of *-ся* is more frequent than its overuse (23/7 uses in vsg’s speech).

b) The attested omissions of *-ся* correspond to non-derived verbs in Nanaic, cf. (35), (36).

Sometimes they correspond to labile verbs (37). No cases of omissions can be explained corresponding to *-p* or *-mači* were found.

(35) Ты думаешь живой / что ли остал (vsg) — instead of остался (corresp. to the Nanai daržį(gu)- *to stay, to remain’*)

(36) Ну как(е) я не могу, я же деревне родила (vsg) instead of родилась (corresp. to the Nanai balži- *to be born’*)

(37) У меня паралич / уже начала (vsg) instead of начала (corresp. to the Nanai daru-, tarpčiu- *to start, to be started’*)

In reflexive contexts, which are not covered by the Nanaic verbal derivation, the use of *себя* instead of the expected *-ся* is attested:

(38) Второй брат сам / застрелил себя (vsg) — instead of застрелился

d) Some overuses of *-ся* can be explained by interference with the Nanaic *p*-derivates (39), some others are more likely cases of overgeneralization (40):

(39) Ой-ой ... ну ярко же поливают / они, у них же витамин много там у нее (vsg) — поливают in the modal passive use ‘can be (effectively) watered’

(40) А куда / оно делось, у нас чо уже вы- выздоровелось (vsg) — a possible analogy with the synonymous поправиться

Cf. also Section 6.7.2 on reflexives in impersonal constructions.

5. Grammatical categories

Some of the peculiarities attested in our data are connected to the non-standard use of Russian grammatical forms.

5.1. Nominal categories: Number

The main peculiarity within the nominal domain is the use of number forms. In Nanai and Ulch, in contrast to Russian, the plural marking is optional, as in (41). The plural form, which is also acceptable in this context, would be *taonjoan-sal-ba* (ich-PL-ACC):

(41) ʒa aqda-xa-pu=nu taj *taonjoan-ba* wə-xa-pu

very be.glad-PST-1PL=PART.EMPH that *ich-ACC* kill-PST-1PL

‘We were very glad to catch these (two) iches’ (Nanai, field records)

---

1A potential influence of non-standard monolingual Russian input is not totally excluded either. The postfix *-ся* behaves differently in some social and dialectal varieties of Russian (cf. Kasatkin 2005: 154 on *-ся* in Russian dialects).
In Nanaic Russian, the uses of singular forms instead of plural forms are also attested. However, the range of such uses is narrower than in the source languages. These are the uses that are problematic in the number assignment in Standard Russian itself and in many languages of the world: non-specific indefinites, including those in special syntactic contexts: (42), (43); names of fruits and vegetables (44); mass nouns (45); names of multipart objects (46):

(42) Той вршол’ как русский’ они (vsg) — sg русский instead of pl русские
(43) Они молодежь ехать/ и поехать/ жену искать (spk) — ‘each of them went to search for a wife for himself’: sg жену instead of pl жен
(44) Помидор, пока не появившись, огуры/ появившись (vsg) — sg помидор instead of pl помидоры
(45) Такой же волос (vsg) — sg волос instead of pl волосы
(46) А тут длининный’, нис (vsg) — sg нис instead of pl нис

There are no uses of plurals instead of singulars. However, examples with the semantically motivated plural agreement are attested:

(47) Щас молодежь совсем другие (vsg)
(48) Сеной’ пикта’ все туда вот эти еда’ (vsg)

The general picture looks more like a case of contact-induced under-acquisition of the Russian number system than a direct calque from Nanaic.

5.2. Verbal categories: Tense-Aspect-Modality

5.2.1. Aspectual mismatches

Examples (49)–(54) illustrate the non-standard choice of perfective (49)–(52) vs. imperfective (53)–(54) verbs.

a) a perfective verb instead of an imperfective one:

(49) Уже в конце пришла/ она давай мне помочь’ (vsg) — instead of помогать
(50) Будем мы его разделить’ (vsg) — instead of делить
(51) Тута’ ехать — надо всегда водку взять (vsg) — instead of брать
(52) Вот так мы всю дорогу выросли (vsg) — instead of росли

b) an imperfective verb instead of a perfective one:

(53) Нета этот бутылочку’ -то а какой-то ааа за неделю’ там ааа пил’ (vsg) — instead of выпил
(54) Они лодку делали/ и поехали’ жену искать (spk)

Such mismatches are typical of contact-influenced varieties of Russian and this fact is usually explained by difficulties in the acquisition of such an exotic category as the Slavic-type derivational aspect. Our data are quite interesting in this respect, because the aspect system of Southern Tungusic languages is quite similar to that of Russian and it can be also interpreted as derivational or semi-derivational (Oskolskaya 2017). Some lexemes are characterized as perfective / imperfective in all their uses, like in Russian; however, many of the lexemes (much more than in Russian) belong to the class of biaspectual verbs (i.e. have both aspectual interpretations).

One can expect the class of verbs with the biaspectral characteristics in Nanai / Ulch to be the main scope of aspect mismatches in Nanaic Russian. However, the real picture is not so simple: e.g. пить in (53) corresponds to the biaspectral оте- in Nanai, and делать in (54) corresponds to the perfective аndo-. A remarkable type of mismatch attested in the data is the inappropriate use of the perfective / imperfective verb in special forms / constructions that have strong aspectual restrictions in Standard Russian, e.g. быть-future in (50), давай+inf.-construction in (49). It is important that in Nanai and Ulch there are no comparable constructions with strong aspectual restrictions.

Another clear type of mismatch is the inappropriate choice of the perfective / imperfective verb in the context of in-adverbials (imperfectives) and for-adverbials (perfectives), cf. (52) and (53). A non-trivial feature of Nanaic languages is that they do not have the opposition between these types of adverbials, both temporal meanings are expressed by the same case form. This is

1 Such uses as черный грибы, in which the singular adjective is used with the plural noun form, seem to have no reference to the number semantics; they are observed in Section 6.5.
one more motivation for the aspectual mismatches attested in Nanaic Russian. What is remarkable in the data is that there is no clear preference for any type of mismatch (reported e.g. for Dagestani Russian in Daniel et al. 2010). Cf. the distribution in the sample of the speaker vsg: 16 uses of imperfectives instead of perfectives vs. 10 uses of perfectives instead of imperfectives.

5.2.2. Tense: the present tense in past habitual contexts

In Nanaic Russian, quite a free use of the present tense with reference to the past is attested in narratives. For instance, in (55)–(56) the present tense refers to a habitual event in the past. In Standard Russian such contexts are marked with the past tense. In Nanai and Ulch, however, the present tense is acceptable, so this case can be considered as a case of pattern borrowing.

(55) Вот клей они делают/ вот эти клей — этим клеили (vsg) — with reference to the past
(56) Это все люди готовят/ летом/ чтобы есть Когда есть/ нечего/ было (vsg) — with reference to the past

Cf. example (57) from Nanai:

(57) тай toke=tani  нанана ango-i-ni=goa
that sledge=and human self do-PRS-3SG=PART
'And people used to make this sledge by themselves' (Nanai, field records)

5.2.3. The pluperfect be-constructions

In Nanaic Russian the construction “V-PST + be-PST” is attested, cf.:

(58) А потом брат/ мой родился ... Альберт/ Ну он жила ... Женился/ было Женатый/ Малышево/ жила (fna)
(59) И эти уехали/ туда Дальше/ дальше/ туда уехали Откуда/ появился было не знаю/ я (fna)
(60) Им давали/ — вещи, давали А мен-то никто не давали/ были Ни/ такое время было (fna)

The verb быть ‘be’ can take the frozen form было, (58)–(59), or it can agree with the subject (60). The semantics is typical of a pluperfect marker (cf. Sichinava 2013): ‘V1 before V2’, ‘V long ago’, ‘V (and then anti-V)’. Some uses (such as (60)) are rather discoursive: they mark background information.

The construction seems to be of a mixed nature. It has prototypes both in Russian and in Nanaic. In Standard Russian there is a construction with the frozen было. However, it has quite a narrow meaning (namely annulative, cf. Barentsen 1986; Knjazev 2004). Be-constructions with a wider range of use are attested in some Russian dialects (cf. Pozharitskaja 1996; Sheveleva 2007).

In Nanai and Ulch similar constructions with the verb ‘be’ (both in a frozen form and in an agreeing one) are also attested (cf. Oskolskaya 2015). Semantically, the construction of Nanaic Russian is quite close to the Tungusic prototype (cf. Oskolskaya, Stoyanova 2017b for more detail).

There are also occasional uses of three more constructions of the same series. The first one is “V-PRS + be-(PST)” (61), the second one is “V-PST + become-(PST)” (62), the third one is “V-PRS + become-(PST)” (63). The first one has a correlate in Nanaic (Oskolskaya 2015). The source of the others is unclear.

(61) У нас там ничего не было Ни врачей/ ничего не было Медсестра/ что/ Молчом <НРЗБ> все равно были Молчом/ тут были-то (fna)
(62) Пришла/ стала — мамка давай рожать (vsg)
(63) Бабушка сидит/ стала (vsg)

5.2.4. The prospective want-constructions

The infinitival construction with the verb хотеть ‘want’ is used in Nanaic Russian speech not only in its direct meaning, but also in the prospective meaning ‘to be likely to V, to be about V’. In particular, it can be used with non-volitive verbs:

(64) Заболелет/ хочет... (aek’s daughter) – ‘(she) is about to fall ill, lit. (she) wants to become ill’

Such uses have two parallels in Nanaic, both are, however, indirect. The first one is the construction with the verb та- ‘to do’. The second one is the desiderative affix -jča. Both markers
have the polysemy pattern desiderative + prospective. It is interesting that the Russian verb делать ‘do’ is not attested in such uses in our data.

6. Syntax

6.1. Non-standard argument and adjunct encoding

In some cases, the argument and adjunct encoding in Nanaic Russian is calqued from Nanai / Ulch. Cf. some examples.

1) In (65) the prepositional phrase к нему, which is reserved for the endpoint of the motion event, is used instead of the dative ему:

(65) К нему сказала (fna) — instead of ему сказала

In Nanai and Ulch the spatial lative case (nan. -či, ulc. -ti) marks the addressee of the verb of speech:

(66) mapa=tani un-ʒi=nı=go mama-či
old.man=and say-PRS-3SG=PART old.woman-LAT

‘And the old man says to the old woman’. (Nanai, field records)

2) In (67) the dative case маме is used instead of у мамы in the essive meaning (‘where’):

(67) А сестра маме живет? (fna) — instead of у мамы

In Nanai and Ulch the suffix -du is polysemous for dative and essive. Cf. a comparable example with this case form:

(68) bun-du=təni exon-do-pu bi-či-ni sagʒi ania
1PL-DAT=and village-DAT-1PL be-PST-3SG old mother

‘At our place, in our village, an old woman lived’. (Nanai, field records)

3) In (69) the accusative form зиму is used instead of the instrumental зимой:

(69) Это дело было зиму — instead of зимой

In Nanai and Ulch the frozen accusative form tua is expected in the temporal meaning.

4) In (70) the instrumental case is used to mark material with verbs of creation (шкурой instead of из шкуры):

(70) Клей делали... Этот... кета\ шкурой\ (vsg) — instead of из шкуры

The same encoding pattern is attested in Nanai and Ulch:

(71) žulim-ba naj ango-si=goa moo-ʒi
idol-ACC man make-IPFV.PRS-3SG=PART wood-INS

‘People make idols of wool’ (Nanai, field records)

5) The case of (72) is not so clear. The form окошке is used instead of в оконше / из оконшо / через оконшо. It can be the dative case or the locative case with the omitted preposition в (в оконше)¹. The second option is more probable.

(72) Потом она оконшо вышла/ (spk)

In Nanaic the “locative” case -ла is used in such contexts (73). The main functions of this case are prolicative and essive².

(73) ĭu-ga-i žapa-go-ra, pāwa-la luŋktu pagʒala-go-xa-ni
tongs-REFL.SG take-REP-CVB.NSIM window-LOC through run-REP-PST-3SG

‘He took his tongs and escaped through the window’ (Nanai, Avrorin 1986: 239)

The closest correlate to the essive-prolicative -ла in Russian is the locative (“prepositional”) case. It has no prolicative function (attested in (72)); however, it has the essive one.

Some other non-standard patterns of argument encoding attested in the data can be interpreted rather as under-acquisition of the Russian system. In (74) the instrumental form врачом

¹See Section 6.2.1 below on preposition drop.
²For Nanai the locative is a default option in such contexts. However, this particular example (72) is from a speaker of Ulch. In Ulch one more case form, namely, the dedicated prolicative -ki (that has no evident parallels in Russian), is possible here.
6.2. Prepositional phrase

6.2.1. Preposition drop

A remarkable feature of Nanaic Russian is the preposition drop. For example, in (76) the locative case, governed by the preposition ʼinʼ, is used. However, the preposition itself is absent. Cf. also examples (77)–(79) for some other prepositions.

(76) Мы с Амура приехали сюда... семьдесят втором году\ (nsz) — ʼinʼ is omitted
(77) Сколько земле\ <НРЗБ> сидят (vsg) — наʼonʼ is omitted
(78) Туда ребятам иду\ (iao) — кʼtoʼ is omitted
(79) Мы месте\ китайцем жили тут (fna) — the etymological ʼinʼ is omitted in вместе, с is omitted in китайцем

Two factors may play a role in the process observed. The first one is the morphosyntactic influence of the native language: dedicated Nanaic case forms correspond to the Russian prepositional phrases in (76)–(79) (spatial cases in (76)–(78), the instrumental / comitative case in (79)). This factor was mentioned as relevant for the same process in Daghestanian Russian (Daniel & Dobrushina 2013) and in Erzya Russian (Shagal 2016). The second one is the phonetic influence of the native language: in Nanai and Ulch, initial consonant clusters are much more restricted than in Russian, see Section 2.3. Such uses as семьдесят втором году instead of в семьдесят втором году can be predicted as a simple cluster avoidance (the initial [s] instead of [vs]). The data show that both factors are involved and the phonetic one seems to be stronger.

Only the morphosyntactic factor can explain such cases as (77) with the longer preposition на. However, such cases are occasional and omissions of one-consonant prepositions (с, к and especially в) are instead very frequent. The quantitative analysis of the presence or the absence of ʼinʼ in 180 ʼinʼ-phrases from 7 speakers shows that:

- phonetic parameters are significant: the preposition-drop is less likely for V-initial stems than for C-initial ones; and it is less likely for stems with initial soft (palatalized) consonants, than for those with initial hard consonants: V-stems < C-stems < C-stems.
- semantic and morphosyntactic parameters are not significant:
  - there is no difference between time-expressions and spatial expressions with ʼinʼ;
  - there is no difference between inessive groups (в + LOC) and illative ones (в + ACC);
  - there is no difference between nouns with the locative-dative syncretism (в деревне / к деревне) and with no syncretism (в окне / к окну): the first group is expected to be more affected if morphosyntactic factor plays a central role, because in Nanai and Ulch the locative-dative polysemy is attested;
  - there is no difference between speakers with different degrees of morphosyntactic interference in their Russian speech, and there is a difference between speakers with different degrees of phonetic interference;
  - word-level cluster simplifications (such as кусно instead of вкусно ʼtastyʼ) are attested for some speakers; however, they are less numerous than preposition omissions.

See Khomchenkova et al. 2017 for more detail.
6.2.2. The use of время as a postposition

Nanai and Ulch use postpositions, while Standard Russian uses prepositions. In Nanaic Russian one might expect the use of Russian prepositions as postpositions. One such case is in fact attested in our data: the postpositional use Н-ACC + время ‘time’ instead of the Standard Russian во время + N-GEN ‘during N’. The preposition во ‘in’ is omitted (see Section 6.2.1 above), the noun takes either the nominative case (80a), as in Nanai / Ulch, or the accusative case (80b) instead of the expected genitive case:1

(80) a. Война время всё, мне == Только война начался/ Нас никто не пускали... (vsg) — instead of во время войны
b. Войну время даже... после войны (vsg) — instead of во время войны

6.3. Possessive constructions

In Nanai and Ulch, the possessive noun phrase is very different from that in Russian. Unlike the Russian one, it has a) the word order ‘possessor + possessee’, b) head marking: the possessor is unmarked, the possessee is marked with a person-number marker according to the person-number of the possessor (see Avrorin 1959: 155 ff.):

(81) mapa bəgǯi (bear foot-3SG) ‘bear’s paw’

In Nanaic Russian the following patterns which are intermediate between the Nanai one and the Russian one are attested.

1) The pattern possessor-NOM + possessee reflects the Nanaic prototype up to the possessive affix:

(82) Там еще брат/ дом был... Я брат-то дом-то успела\ (vsg)

2) The pattern possessor-GEN + possessee inherits the Russian genitive marking and the Nanaic word order2:

(83) Потом видит/ отца дом\ (spk)

3) Another compromise strategy is the overuse of the Russian possessive suffix -и́н. The possessor marked with this suffix takes the left position, so the use of -и́н allows the speaker to save the word order typical of Nanaic languages. In fact, this suffix is used by Nanai and Ulch speakers quite often and wider than by speakers of Standard Russian. For example, it can mark a more than one-word possessor group, cf. (84).

(84) Ходжер\ Любина ааа дочька\ (fa) — instead of дочки Любы (the first name) Ходжер (the last name)

6.4. Numerical constructions

The syntax of numeral constructions is one of the most complicated fragments of Russian grammar. There are two formal types of the constructions: 1) type 1 which is used with the paucal numerals два ‘two’, три ‘three’, четыре ‘four’, два ‘both’, полтора ‘one and half’, 2) type 2 which is used with the other numerals. In the nominative case (and the nominative-like accusative case), numerals behave as syntactic heads and the dependent noun takes the genitive singular form for the first group of numerals and the genitive plural form for the second one. In oblique cases all numerals behave as dependents and agree with the head noun in case, like adjectives. A simpler system is attested in Nanai and Ulch. All numerals behave as adjectives. They are used in preposition to the head noun and take no inflection. The noun can be used in the plural or singular form. Table 1 shows the non-standard numeral constructions attested in

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1 The noun (войну) presumably gets the accusative case from the omitted preposition в ‘in’, in the same way as время ‘time’. It is possible that two synonymous prepositional constructions of Standard Russian are contaminated here: в + Н-ACC (в войну) and во время + N-GEN (во время войны). A more complex case of contamination is attested in the use во время войны. In this example, the locative case (one more case appropriate for the preposition во) is used.

2 The word order “Gen + N” is not forbidden in oral spoken Standard Russian. It is, however, very rare.
Nanaic Russian in the nominative case in comparison to the Standard Russian constructions and the Tungusic ones.

Table 1. Non-standard numeral constructions in Nanaic Russian

<table>
<thead>
<tr>
<th></th>
<th>Nanaic Russian</th>
<th>Standard Russian</th>
<th>Nanaic and Ulch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>paucal numerals</strong></td>
<td>NUM + N-SG-NOM, NUM + N-PL-NOM</td>
<td>NUM + N-GEN.SG</td>
<td>NUM + N-SG-NOM, NUM + N-PL-NOM</td>
</tr>
<tr>
<td><strong>other numerals</strong></td>
<td>NUM + N-GEN.PL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from the table that the non-standard patterns attested are exact calques from Nanai and Ulch: the numerals behave as adjective-like dependents, the noun can take plural or singular marking, there is no difference between two groups of numerals (paucal ones vs. others). Cf:

a) Paucal numerals
   (85) a. У них было три амбар\(\text{vsg}\) — NOM.SG, instead of три амбара
   b. Поехали два брата\(\text{vsg}\) — NOM.PL, instead of два брата

b) Other numerals
   (86) Вот там пять дом\(\text{vsg}\) — NOM.SG instead of GEN.PL (пять домов)
   (87) У меня уже четверо\(\text{vsg}\) дети были — NOM.PL instead of GEN.PL (четверо детей)\(^1\)

One more type of non-standard numeral constructions stems from the under-acquisition of the Russian system. Examples (88) and (89) demonstrate the genitive singular marking instead of the expected genitive plural one. Opposite examples (the genitive plural marking instead of the expected genitive singular one) are absent in the data.

(88) Двое пацанчика\(\text{vsg}\) — GEN.SG instead of GEN.PL (два пацанчиков)
(89) Двести центнер\(\text{fna}\) — GEN.SG instead of GEN.PL (двести центнеров)

In this case there is neither a semantic motivation nor direct parallels in Nanai and Ulch. The most probable explanation is overgeneralization: the Russian numerals двое and девести take the singular marking in the speech of bilinguals due to the analogy with два, which in fact takes the singular marking in Standard Russian.

I do not have enough data on numeral constructions in oblique cases. Rare examples of non-standard uses show a pattern of overgeneralization from the more frequent nominative construction:

(90) До трёх года/ никому\(\text{vsg}\) — GEN.SG instead of GEN.PL (трёх лет), cf. the nominative (три года)

6.5. Disagreement

One of the most frequent types of peculiarities attested in the data is disagreement of different kinds. In Tungusic languages person-number agreement is attested on verbs and on head nouns in possessive constructions. There is no agreement on adjectives; there is no gender agreement at all. The main differences between the Nanaic agreement system and that of Standard Russian and the patterns of agreement mismatches attested in Nanaic Russian are summarized in Table 2 on the next page. The table shows that mismatches occur in those parts of the agreement system that do not coincide in the languages in contact. Different types of agreement mismatches are described below.

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\(^1\) The collective numerals, such as двое 'two', трое 'three', четверо 'four' are of type 2 in Standard Russian, and not of type 1.
Table 2. The agreement system in Nanaic languages, in Standard Russian and in Nanaic Russian

<table>
<thead>
<tr>
<th>agreeing word</th>
<th>Nanai and Ulch</th>
<th>Standard Russian</th>
<th>Non-standard patterns attested in Nanaic Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjective in attributive position</td>
<td>no agreement</td>
<td>gender-case-number</td>
<td>gender mismatches, default m.sg.nom</td>
</tr>
<tr>
<td>possessive</td>
<td>person-number</td>
<td>no agreement</td>
<td>–</td>
</tr>
<tr>
<td>adjective in predicative position</td>
<td>no agreement</td>
<td>gender-number</td>
<td>gender mismatches, number mismatches</td>
</tr>
<tr>
<td>verb, past tense</td>
<td>person-number</td>
<td>gender-number</td>
<td>gender mismatches, number mismatches</td>
</tr>
<tr>
<td>verb, other indicative forms</td>
<td>person-number</td>
<td>number mismatches</td>
<td></td>
</tr>
</tbody>
</table>

6.5.1. Gender disagreement

The gender disagreement is attested in the data in all possible morphosyntactic contexts: on adjectives both in the attributive position (91), (92), (93), (94) and in the predicative position (95), and on verbs in past tense forms (96). The non-standard choice of personal pronouns also takes place (97). All possible types of transitions, except those to neuter, occur in the data: f=m (91), m>f (92), n>m (94), n>f (93).\(^1\) In the speech of “the most non-standard speakers” gender disagreement is quite frequent: for example, in the sample of vsg, 34% of all agreement contexts contain gender mismatches.

\(^2\) Cf. quite a different picture observed in some Russian dialects in which only the neuter gender is “eroded” (see Kasatkin (2005: 116–117) for the overview.

\(^3\) The part of non-standard uses in the sample of all agreement uses (standard + non-standard) is meant.

\(^4\) The hierarchy adj > verb > pron is similar to the agreement hierarchy proposed by G. Corbett (1991: 225–260): attributive > predicative > relative pronoun > personal pronoun. Corbett’s hierarchy predicts the behavior of hybrid nouns (nouns with gender agreement splits resulted from the conflict between the morphological motivation and the semantic one, such as German Mädchen). Right positions in the hierarchy are more likely to take semantic agreement than left ones. The same hierarchy is relevant for semantically motivated diachronic changes of gender systems: right positions change agreement first. The general explanation for the empirical facts is that left positions in the hierarchy are syntactically closer to the noun that controls agreement than right ones (see Corbett 1991 for more detail). One can assume that the same syntactic mechanism determines the difference in frequency of gender mismatches observed in our data. However, 1) it is unclear why the positions that are syntactically closer to the noun (adjectives) are less stable in gender agreement, and not more stable as one might expect; 2) our empirical hierarchy is formulated in part of speech terms and not in syntactic terms as that of Corbett (see observation 2); 3) the competition between semantic gender and morphological gender, which is in focus in Corbett’s study, seems to be not very relevant for gender mismatches in Nanaic Russian (see observations 3 and 7). So, probably, the similarity to Corbett’s agreement hierarchy is not substantial.
3) Mismatches are attested both for non-human nouns and for human (sex-differentiable) nouns. Moreover both transitions f>m (91), (96) and m>f (95), (97) occur across human nouns. However, the rate of mismatches is lower for humans (non-human>human).

4) The rate of mismatches does not depend on word order. However, it is higher if the noun is overtly expressed within the clause.

5) The following hierarchy of genders is observed: m>f>n. The masculine is the most stable, the neuter is the least stable, i.e. the rate of masculine nouns that take a non-masculine agreement is the lowest, and the rate of neuter nouns that take a non-neuter agreement is the highest.

6) A non-standard and standard gender agreement sometimes occur within the same clause.

7) There is no clear correlation with the morphological type of the noun, at least in the data sample available (e. g. more marginal a-masculines such as дедушка 'grandfather' are not more likely to change the gender than the more standard Ø-masculines such as муж Ø 'husband').

For more detail and for quantitative data see Khomchenkova et al. (2018).

6.5.2. Case and number disagreement

Sometimes a non-agreeing default form of the adjectival is used in accordance with the Nanaic pattern. In Nanaic Russian the masculine singular nominative form acts as such a default form.

Cf.:

(98) Этот деревне с родственником ... родственником нельзя жениться (spk) – instead of этой

However, such examples are very rare in the sample. A more frequent pattern is the singular form in the plural context. Cf. examples with adjectives in different syntactic positions (99), (100) and with a verb (101):

(99) Бабушки были бы живой (vsg) – instead of живые о живы
(100) По книге когда разговариваешь/ совсем другой разговоры\ (vsg) – instead of другие
(101) Некоторые остались\ тут, ну/ (ma) – instead of остались

6.6. Differential object marking and other uses of the nominative case

Differential object marking (DOM) is attested in Nanaic Russian: a free variation between the accusative case (as in Standard Russian) and the nominative case in the direct object position is observed in our data, cf. (102a) and (102b).

(102) a. То плохую рыбу\ ACC принесла — что там, собакам\ буду варить (vsg)
    b. Рыба\ NOM сдаём / (vsg)

Cf. some more examples of nominatives in the direct object position:

(103) И голова\ NOM копит, и мясо\ копит (vsg)
(104) А я вам щас расскажу как деда наш... медведь\ NOM убивал (vsg)
(105) Война случилась / — братья\ NOM забрали / (vsg)

Such uses are quite frequent across speakers of older generation. In the sample of vsg the rate of nominatives in direct object position is 44% (41 uses of the nominative vs. 50 uses of the accusative and some unclear cases)².

The preliminary analysis shows that:

1) there is no correlation with such crosslinguistically relevant factors as animacy and the human/non-human opposition, definiteness and specificity, word order, and the properties of the

---

1 The opposite is reported for gender mismatches in child speech (cf. Gvozdev 1961; Ceitlin 2006; Rodina, Westergaard 2012) and in heritage Russian (Polinsky 2008). The morphological type of noun is mentioned as the main predictor of gender mismatches: папа-м > папа-f (like мама-f), зеркал[a]-n > зеркал[a]-f (like кукла[a]-f), кость-f > кость-m (like гость-m).

2 Only the contexts in which the accusative form differs from the nominative one in Standard Russian were taken into account.
predicate (see Witzlack-Makarevich, Seržant 2017 for an overview of crosslinguistic patterns of DOM);

2) there is a weak correlation with the information structure: the nominative case is more likely to mark left-dislocated foci (104);

3) there is a correlation with the noun stem type: a-stems with unstressed endings, such as рыба 'fish' in contrast to голова 'head', are more likely to take the nominative encoding. For more detail see Stoyanova (2018).

On the one hand, there is a clear parallel to the pattern of DOM discussed in Nanai and Ulch. In these languages a free variation between the dedicated accusative form and the unmarked nominative form is attested (Oskolskaya & Stoyanova 2017). On the other hand, the correlation with the noun stem type argues for under-acquisition of the Russian system as a relevant factor. The Russian system has its own complicated distribution of accusative forms, which can be formally equivalent to the nominative or to the genitive, depending on the animacy and on the declension class. A possible explanation of the correlation attested is that the nominative and accusative forms are less perceptually distinctive for stems with unstressed endings (рыба \(\approx\) рыбу, голова \(\approx\) голову), so they are more difficult to acquire.

6.7. Voice and valency changing constructions

6.7.1. The causative construction

An interesting case of contact-induced grammatical features is a causative construction presented in Nanaic Russian:

(106) Живут меня дают спокойно\(\text{(vsg)}\)

Example (106) has the following prototypes. In Nanai and Ulch, there is a causative affix (-\(\text{wən}\)) with a wide range of meanings including the permissive one presented in (107). The causee is marked with the accusative case: V-CAUS- + CAUSEE-ACC.

(107) tuj puju-či bumbi sea-wa-nda-či
so cook-IPFV.PRS 1PL.ACC eat-CAUS-PURP-DES.PRS
'So he cooked, he wanted to let us eat' (Nanai, field records)

In Standard Russian there is an analytic permissive construction with дать/давать 'give'. The lexical verb is in the infinitive form, the causee is marked with the dative case: дать/давать + CAUSEE-DAT + V-INF:

(108) Они дают мне жить спокойно.

The structure attested in (106) is a contamination of both constructions: the construction is analytical, with the verb давать, as in Standard Russian, but the lexical verb is finite and the causee is marked with the accusative case, as in Nanai and Ulch.

6.7.2. The impersonal construction

Grammatical interference with Nanai and Ulch is observed in impersonal constructions attested in the data. Examples such as (109) are close, but not identical to the two types of synonymous constructions in Standard Russian: a) the passive construction: the verb on -ся + the patient in the subject position (nominative, 110a), b) the impersonal construction: the verb in the 3PL-form + the null-subject + the patient in the object position (accusative, (110b)).

(109) Таксу\(\text{(fna)}\) делается
(110) a. Такска делается
b. Таксу делают

---

1 One more hypothetical factor is the influence of Russian dialects. The use of the nominative case in direct object position is in fact attested in the monolingual dialectal speech (cf. Kasatkin 2005: 182 ff. for the overview). It is especially frequent in Northern dialects (Ronjko 2017). However, 1) Nanai’s and Ulcha’s have never been in the permanent contact with speakers of this dialectal group, 2) in Nanaic Russian, DOM has no predisposition to infinitive constructions, as in Northern dialects. So this factor seems to be irrelevant.
(109) looks like a contamination of these two constructions: the verb on -ся + the null-subject + the patient in the object position (accusative). A clear parallel to (109) in Nanaic languages is an impersonal construction illustrated in (111). The verb in the construction is marked with a dedicated suffix (-wu~u). The argument encoding has no changes (the patient takes the accusative case). See for more detail Stoynova (2016).

(111) soakta čolom-ba-ni xonų puju-u-rį
sagebrush soup-ACC-3SG how cook-IMPS-PRS

‘How does one cook the sagebrush soup?’ (Nanai, field records)

The only difference is that -wu in Nanai and Ulch is reserved for this particular construction, while in Nanaic Russian the postfix -ся has a very wide range of meanings (as this is the closest parallel to -wu in Russian).

6.8. Reflexives

Example (112) illustrates a non-standard use of reflexive pronouns in subordinate clauses:

(112) Она же знает / они уме = свои братья \ все умерли \ (vsg)
In (112) the reflexive свой ‘of herself’ instead of the anaphoric ee ‘her’ is used with reference to the subject of the main clause (so called long-distance reflexives).

This syntactic pattern is borrowed from the Nanaic languages. In Nanai and Ulch exactly the same rules apply to the same syntactic position (possessive affixes on the subject of the dependent clause), (113), (Stoynova 2018b).

(113) mapa sā-ri sogdata-i nā-xam-ba-ni
bear know-PRS fish-P.REFL go.bad-PST-ACC-3SG

‘The bear knows that his fish (lit. the fish of himself) went bad’ (Nanai, elicit.)

6.9. Negative existentials

In Standard Russian the subject of the negative existential construction is marked with the genitive case. This is quite an exotic grammatical feature.

(114) К вечеру уже красноты нет.
In our data the nominative case is attested in such contexts:

(115) Смотри / к вечеру уже краснота нету \ (vsg)
The same pattern is attested in Nanai and Ulch, (116). The genitive case is entirely absent in these languages.

(116) arun balǯe xa=goa tatuə aba bi-či
suffering live-PST-1PL=PART clothes.NOM NEG.COP be-PST

‘We lived poorly. There were no clothes’ (Nanai, field records)

6.10. Coordination

In Nanai and Ulch there are the following noun coordination patterns:

a) monosyndetic, postpositive, the second conjunct marked (A B-co);
b) bisyndetic, postpositive (A-co B-co).

Two markers are used as coordinators in both cases: 1) the emphatic enclitic =da~=da and 2) the instrumental (comitative) case affix -ǯi. The bisyndetic pattern is more widespread than the monosyndetic one.

In Standard Russian there are also 1) the conjunction strategy and 2) the comitative strategy. The comitative one has only a monosyndetic variety, which is structurally the same as in Nanaic languages. The conjunction strategy, on the other hand, differs from the Nanaic one: the coordinator is prepositive. The neutral pattern is the monosyndetic one with the conjunction u. See the comparison in Table 3 on the next page.

1 See Haspelmath (2007) for the terminology used below.
Non-standard coordination patterns attested in Nanaic Russian follow both the source-language model and the Russian one to some extent.

6.10.1. The conjunction strategy

The first feature of Nanaic Russian is wide use of the coordinator *да. It is used in Russian dialects. However, in Standard Russian its use is quite restricted in the monosyntactic construction (мышка *да лягушка) and totally forbidden in the bisyndetic one (*да мышка да лягушка). The neutral conjunction is *и. The use of *да is probably supported in Nanaic Russian by the formal coincidence with the coordinator of the source language (=да—*да). The second feature is the position of the coordinator. There is a continuum of patterns: some of them are similar to the Russian ones; some others are similar to the Nanaic pattern. Cf. different examples from one speaker (fna):

(117) ...я одела куртка/ да=это\(... (fna) — А со-В, = Standard Russian
(118) ...ленька\=*да всжкий сига\ было, ну/ (fna) — А со-В, mixed
(119) ...да десять килограм мука/ =десять килограм крупа\=*да... (fna) — А со1-В-со2, mixed
(120) ...там сколько\ в Моск= офицер\=*да майор\=*да (fna) — А со-В-со, =Nanai

Example (117) is expected for Standard Russian excluding the choice of the conjunction (*да instead of *и). Example (120) instead copies the source-language bisyndetic pattern, which is absent in Standard Russian. Examples (118) and (119) are of a mixed nature; (118) differs from (117) in the prosody: the conjunction is between the conjuncts as in Standard Russian, but it is an enclitic to the first one as in the source-language, not a proclitic to the second one as in Standard Russian. So the example illustrates the compromise pattern А со-В that is absent in both languages. In (119) both the Standard Russian prepositive *и= and the Nanaic-like postpositive =*да mark the second conjunct. Such a pattern is not attested in Nanai and Ulch or in Standard Russian and it is quite unusual crosslinguistically (cf. Haspelmath (2007) for the typological overview of coordination strategies). See Table 4. The Tungusic pattern А со-В in a pure form (*офіцер майор=*да) is not found in the data. The explanation is that this pattern is very different from Russian and also marginal for Nanai and Ulch. The information on coordination patterns in Nanaic Russian in comparison to Russian and Tungusic languages is summarized in Table 4.

Table 4. The Nanaic coordination patterns

<table>
<thead>
<tr>
<th>Russian</th>
<th>Nanai, Ulch</th>
<th>examples ('frog and mouse')</th>
</tr>
</thead>
<tbody>
<tr>
<td>А со-В</td>
<td>attested</td>
<td>Standard Russian</td>
</tr>
<tr>
<td>А В-со</td>
<td>not attested</td>
<td>Nanai, Ulch</td>
</tr>
<tr>
<td>A со-В</td>
<td>attested</td>
<td>Nanai, Ulch</td>
</tr>
<tr>
<td>A со-В-со</td>
<td>not attested</td>
<td>(Standard Russian *и)</td>
</tr>
<tr>
<td>co-А со-В</td>
<td>not attested</td>
<td></td>
</tr>
<tr>
<td>A со1-В-со2</td>
<td>attested</td>
<td></td>
</tr>
</tbody>
</table>

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1 An interesting fact is that exactly the same pattern А=*да В=*да is attested in Taimyr Russian Pidgin (Govorka), see Stern (2012).
6.10.2. The comitative strategy

The monosyndetic coordination construction is generally the same in Russian and in Nanaic languages. In the sample such non-standard examples as мама папой (instead of мама с папой) ‘mother and father, lit. mother father’ are attested. They are formally closer to the Nanaic prototype; however, this case can be interpreted as a regular preposition omission (see Section 6.2.1 above). Such examples as (121) and (122) are more interesting:

(121) Дедушка, бабушкой, мать… всё = = = ... я = = = = сестры все умерли (iao)

‘My grandfather, my grandmother, my mother (totally == me ==) my sisters – they all died’.

(122) Мама, папа, братьям, на беш (per) это … на Амур ездили / там … (fna)

‘My mother, my father and my brother went to Amur’.

The features of these examples are 1) the intonation which is typical of juxtaposition and not of the Russian comitative construction, 2) the use in three-component coordination structures, which is impossible in Standard Russian. I am not sure that exactly the same structures are possible in Nanai and Ulch. However, these examples show that the instrumental form is realized by speakers as a neutral means of coordination. This is true for Nanai and Ulch but not for Russian.

The Nanaic-like bisyndetic construction with two instrumental case forms (дедушкой бабушкой) is not attested in the sample. In the source languages it is very frequent. However, it is very atypical in languages of the world (Stassen 2000; Stolz et al. 2006; Arkhipov 2010 on the comitative coordination; Oskolskaya 2008 on comitatives in Nanai). It may be the reason why it does not penetrate into the Russian speech of the Nanai/Urch-Russian bilinguals. (For more detail on the coordination in Nanaic Russian, see Stoynova 2017).

7. Lexicon

Lexical borrowing is discussed very briefly: see Section 7.1 for pattern borrowing (lexical calques) and Section 7.2 for material borrowing (loanwords).

7.1. Lexical calques

Some clear examples of lexical calques that follow Nanaic polysemy models and are absent in Standard Russian are given below. The Nanaic parallels were checked in the dictionaries (Onenko 1980 for Nanai and Sunik 1985 for Ulch) and also in the text sample.

(123) … там разные крупы \ вот так вот налила/ (oab) — налила ‘poured (liquid)’ instead of насыпала ‘poured (dry substance)’; cf. ulc. kili- ‘to pour (in both meanings)’

(124) … когда люди … это … день ро = это … восьмое марта … дают/ чо-нибудь (fna) — дают ‘give’ instead of дарят ‘make a present’; cf. nan. bixi 1) ‘to give’, 2) ‘to make a present’

(125) … на наргах пошли (fna) за дровами \ (vsg) — пошли ‘went on foot’ instead of поехали ‘went by transport’; cf. nan. anga- ‘to go (in both meanings)’

(126) Бабка \ икная я не успела \ (vsg) — ‘haven’t been in time’ instead of не застал ‘haven’t found alive’; cf. nan. dobda- ‘1) to be in time, 2) to find (smb. somewhere)’

However, not all uses that seem to be candidates for calques are real calques. For example, the non-standard use of следим ‘look after’ in the meaning ‘follow (traditions)’ as far as I know does not correspond to any polysemy model in Nanai. It can be explained rather as the contamination of two Russian verbs следить ‘look after’ and следовать ‘follow’.

(127) Мы свое обычаи \ всë \ следим \ (vsg)

7.2. Loanwords

The loanwords attested in the data mostly belong to two large classes: ethnographic terms specific for Nanaic culture (names of traditional meals, clothes, rituals etc.) and the most frequent everyday words, such as ‘sister’, ‘Russian’, ‘old man’, ‘to cook’ etc. The second class is more interesting. It is evident that speakers are familiar with the corresponding Russian words and they do

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1 In the dictionary of Nanai (Onenko 1980) the Russian loan podarila- is proposed for ‘to make a present’.

2 The special tag “nonstand_lex” is used for such unclear cases in the corpus annotation. The tag “calque” is reserved for undoubted proven calques.
use them along with these loans. However, in the situation of language shift, such loans are presumably realized by speakers as an important marker of the cultural and language identity.

Borrowed nouns in Nanaic Russian often take the form “Nanaic stem + -шка” (or -шку for plurals). Cf. ээшка (nan. əgə ‘sister’), хэрэкэшка (ulc. xərəkə ‘frog’), сугдишка (nan. sugǯin ‘a ritual meal’), лошка (nan. loǯa ‘Russian’), мапашка (ulc. тара ‘old man’), солимашка (nan. solima ‘a meal of berries and bread’, доктошки (nan. dokton ‘leather socks’).1

Most of the adopted borrowed verbs belong to the Russian i-final type stems: чектерить (nan. čəktəri ‘to sprinkle with vodka ritually’, унюрэдить (ulc. uńurəǯu ‘to cook’), суйлить (ulc. sụjlị ‘to shuffle’), кэсигэлить (kəsi gələ ‘to perform a special rite, lit. to find a fortune’). The verbs mentioned above are all derived from Nanaic verb stems ending on vowels. Some of them have the final -i in the source language itself, but not all of them (cf. kəsi gələ > кэсигэлить). In the data we have no examples of the adaptation of consonant-final verbs, which also exist in Nanai and Ulch.

8. Statistics

Table 5 contains the corpus data on the frequency of different types of morphosyntactic peculiarities attested in the Russian speech of Nanais and Ulchas that were discussed above. All the data in the table come from the text sample of one speaker (vsg) with the most non-standard Russian.

Table 5. The frequency of different types of morphosyntactic peculiarities in Nanaic Russian (data for the speaker vsg)

<table>
<thead>
<tr>
<th>domain</th>
<th>% (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>number</td>
<td>21% (42)</td>
</tr>
<tr>
<td>inflection: nominal</td>
<td>17% (34)</td>
</tr>
<tr>
<td>reflexive</td>
<td>17% (34)</td>
</tr>
<tr>
<td>aspect</td>
<td>13% (27)</td>
</tr>
<tr>
<td>derivation</td>
<td>11% (23)</td>
</tr>
<tr>
<td>gender (excluding agreement)</td>
<td>10% (20)</td>
</tr>
<tr>
<td>inflection: verbal</td>
<td>8% (17)</td>
</tr>
<tr>
<td>tense</td>
<td>3% (6)</td>
</tr>
<tr>
<td>other</td>
<td>0.5% (1)</td>
</tr>
<tr>
<td>morphology: total amount</td>
<td>100% (204)</td>
</tr>
<tr>
<td>agreement: adjectives</td>
<td>21% (172)</td>
</tr>
<tr>
<td>argument encoding (excluding differential object marking)</td>
<td>15% (121)</td>
</tr>
<tr>
<td>agreement: verbs</td>
<td>13% (111)</td>
</tr>
<tr>
<td>preposition drop</td>
<td>12% (103)</td>
</tr>
<tr>
<td>numeral construction</td>
<td>7% (55)</td>
</tr>
<tr>
<td>differential object marking</td>
<td>6% (50)</td>
</tr>
<tr>
<td>dependent clause</td>
<td>4% (34)</td>
</tr>
<tr>
<td>possessive construction</td>
<td>4% (30)</td>
</tr>
<tr>
<td>topic construction</td>
<td>2% (20)</td>
</tr>
<tr>
<td>voice</td>
<td>2% (20)</td>
</tr>
<tr>
<td>coordination</td>
<td>2% (17)</td>
</tr>
<tr>
<td>negation</td>
<td>2% (17)</td>
</tr>
<tr>
<td>use of anaphoric pronouns</td>
<td>2% (14)</td>
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<tr>
<td>serialization</td>
<td>1% (12)</td>
</tr>
<tr>
<td>Part of speech changing</td>
<td>1% (8)</td>
</tr>
<tr>
<td>verb construction (быть, стать and others)</td>
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</tr>
<tr>
<td>prepositional phrase (excluding preposition drop)</td>
<td>1% (7)</td>
</tr>
<tr>
<td>other</td>
<td>4% (30)</td>
</tr>
<tr>
<td>syntax: total amount</td>
<td>100% (830)</td>
</tr>
</tbody>
</table>

1 This model as a strategy of loan adaptation is also used in Standard Russian, cf. кафешка, превьюшка, анимешка. However, in Standard Russian, it is quite restricted and has a clear evaluative nuance, while in Nanaic Russian it is frequent and neutral.
The data show that:

- there are many more peculiarities in syntax than in morphology (80%);
- the most frequent morphological peculiarities are number mismatches, non-standard nominal inflection and non-standard uses or omissions of the reflexive -съ;
- the most frequent syntactic peculiarities are different types of disagreement (36%).

Table 6 gives an estimation of how “non-standard” the Russian speech of a particular speaker is. The table contains the number of morphosyntactic peculiarities per 100 clauses attested in texts for 4 older speakers: vsg and fna (Nanai), spk and oab (Ulch).

<table>
<thead>
<tr>
<th></th>
<th>N peculiarities / 100 clauses</th>
<th>N peculiarities / 100 clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ulc_spk</td>
<td>48,2</td>
<td>147/305</td>
</tr>
<tr>
<td>gld_vsg</td>
<td>48,07</td>
<td>832/1731</td>
</tr>
<tr>
<td>gld_fna</td>
<td>29,35</td>
<td>189/644</td>
</tr>
<tr>
<td>ulc_oab</td>
<td>28,34</td>
<td>195/688</td>
</tr>
</tbody>
</table>

9. Conclusions

This grammatical description of the contact-influenced Russian speech of Nanais and Ulchas is an attempt to systematize fragmentary observations that emerged during the fieldtrips to the area and especially during the transcription and the annotation of the corresponding text collection. The main ideology of annotating the “peculiarities” of contact-influenced Russian was to mark with some tag all the features that have a chance to be of a contact nature. In practice, it means to mark everything that deviates from Standard Russian. This is a reasonable way to not bring too much subjective interpretation into the corpus data. However, while analyzing these data, one should be very careful.

The detailed comparison to the data of the languages in contact, Nanai and Ulch, shows that quite a low rate of these potentially contact-induced features are clear and undoubted cases of phonetic, grammatical or lexical interference in the narrow sense (i.e. calques, pattern-borrowing) . Even those features that, in fact, have the probable contact motivation, often reveal a more complex nature. Particularly, there are a lot of cases attested which can be explained rather as mixed patterns inherited in part from the native language, and in part from Russian. One more empirical fact is that the cases of pattern borrowing from L1 are less prominent in the data than the cases of under-acquisition or non-standard acquisition of Russian.

References

Arkhipov, A.V. *Tipologija komitativnych konstrukcij* [The typology of comitatives]. Moscow:JaSK.

1 The detailed comparison to oral spoken monolingual Russian and to regional monolingual Russian varieties that has not been consistently conducted yet would probably exclude some more peculiarities from the list of “candidates to contact-induced features”.

31


Abbreviations

1, 2, 3 — 1, 2, 3 person; ACC — accusative; CAUS — causative; COP — copula; CVB — convert; DAT — dative; DES — desiderative; DO — direct object; DOM — differential object marking; EMPH — emphatic; GEN — genitive; IMPS — impersonal; INF — infinitive; INS — instrumental; IPFV — imperfective; LAT — lative; LOC — locative; M — masculine; N — neuter; NEG — negator; NOM — nominative; NSIM — nonsimultaneous; NUM — numeral; PART — particle; PL — plural; POS — part of speech; PRS — present; PST — past; PURP — purposive; REFL — reflexive; REP — repetitive; SG — singular; TAM — tense-aspect-modality; V — verb.

Appendix 1. Narrators, texts

<table>
<thead>
<tr>
<th>code</th>
<th>sex</th>
<th>L1, dialect</th>
<th>year of birth</th>
<th>place of birth</th>
<th>place of residence</th>
<th>Russian (1...10)</th>
<th>L1 (1...10)</th>
<th>education</th>
<th>texts (hh:mm:ss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>eim</td>
<td>f</td>
<td>Nanai, Sikachi-Aljan</td>
<td>1927</td>
<td>Sikachi-Aljan</td>
<td>Sikachi-Aljan</td>
<td>4</td>
<td>7</td>
<td>secondary school</td>
<td>0:06:04</td>
</tr>
<tr>
<td>fna</td>
<td>f</td>
<td>Nanai, Naikhin</td>
<td>1930</td>
<td>Dada</td>
<td>Daeraga</td>
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20 speakers: 19, m=1 Nanai & Ulch 1927-1961 7:29:56
Appendix 2. Spectrograms

Picture 1. [ribɔ] ‘fish’ (fna)

Picture 2. [gorot] ‘town’ (oab)

Picture 3. [radjitɕiljɪ] ‘parents’ (oab)
Picture 4. [xəɾso urəzəj dəvalj] ‘well gave harvest (it used to yield)’ (spk)

Picture 5 [sarj saltan] ‘king Saltan’ (vsg)

Picture 6 [i'_tɐtɕit] ‘and knocks’ (fna)
Picture 7 [pjitjitska] 'bird' (spk)

Picture 8. [kagbutu] 'as if' (fna)

Picture 9. [a uruljilja] 'and ruled' (vsg)