

ON THE SPECIFIC FEATURES OF OROK AS COMPARED WITH THE OTHER TUNGUSIC LANGUAGES

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This paper is an attempt at a selective contrastive description of the Orok (Uilta, Ul'ta) language in comparison with the other Tungusic languages. The emphasis will be on certain specific features of Orok in the realms of phonology (including historical phonology), morphophonology, verbal morphology, as well as lexicon (including lexical borrowings). The survey will in particular cover those features that distinguish Orok from the other Tungusic languages, or, at least, from most of them. In many of these cases we are dealing with areal parallels and substratal phenomena, which Orok shares with the other, non-Tungusic languages of the region.

Статья является опытом избирательного контрастивного описания орокского (уйльтинского) языка в сравнении с другими тунгусо-маньчжурскими языками. В статье рассматриваются особенности орокского языка в области фонетики (в том числе исторической), морфологии, глагольной морфологии, а также лексики (включая заимствованную лексику). Это те особенности, которые отличают орокский от всех или большей части тунгусо-маньчжурских языков. Во многих случаях мы имеем дело с ареальными параллелями и субстратными явлениями, которые сближают орокский язык с другими, нетунгусскими языками региона.

1. INTRODUCTION

The Orok (Uilta, Ul'ta) are an extremely tiny ethnic group living on Sakhalin. The linguistic ancestors of the Orok seem to have appeared on Sakhalin after the Nivkh, but before the Ewenki. The Orok are the only indigenous group on Sakhalin whose territory does not extend beyond the island. The absence of Orok on the continent suggests that their formation as an ethnic group took place on Sakhalin.¹

The traditional economy of the Orok is based on reindeer husbandry, supplemented by fishing and hunting, including hunting of marine mammals. The fact

¹ This paper was written in the framework of the project "Historical Contacts of the Endangered Orok Language" (project no. 16-04-50123), supported by the Russian Humanitarian Science Foundation.

that the reindeer husbandry of the Orok is not a recent loan from the Ewenki practice is suggested by their reindeer terminology, which shows archaic features from the point of view of historical phonology and etymology.

The Orok today live mainly in the settlement of Val and in the township of Poronaïsk. According to the census of 2010 they numbered 295 people (in the Russian Federation), though the actual number may be even smaller. The number of active speakers of the Orok language is significantly smaller again, comprising only a few individuals.

The Orok language is divided into two dialects, a northern and a southern one (concerning their differences, cf. Ikegami 2001: 247–283). Genetically, in the context of the Tungusic language family, Orok is close to Ulcha, as well as to Nanai. As a secondary layer of influences, Orok incorporates some borrowings from the Ewenki language, which spread to Sakhalin from Yakutia only relatively recently. At the same time, it is possible that Orok has also more ancient Ewenki influences, especially in the morphology.

Below, we shall take a closer look at some of the specific features of Orok in the realms of phonology (including historical phonology), morphophonology, verbal morphology, as well as lexicon (including lexical borrowings). The emphasis will be on those features that distinguish Orok from the other Tungusic languages; in other words, we shall make an attempt at a selective contrastive and comparative description of the Orok language. As will be seen, many of the features to be discussed involve areal parallels and substratal phenomena, which link Orok to the other, non-Tungusic languages of the region.

2. CONSONANT GEMINATION

The Orok language has a rule which requires the gemination of any medial consonant in the position before a long vowel element, that is, before a double or geminate vowel, or a diphthong. In such cases, we may speak of the regressive accommodation of a consonant to the quantity of the following vowel. The phenomenon may be exemplified by the nominal (spatial) form *dulleekkeewwee* ‘in front of me’ (Ikegami 2001: 29),² morphologically *dullee-kkee-wwee* front-PROL-1SG.OBL.

2 In the present paper, the sources of the data are indicated only when they are other than the standard publications of the late Professor Ikegami. With few exceptions, all examples, including those from languages other than Orok, are quoted in the transcription used by Ikegami. More specifically, in this transcription, the letter *e* denotes an unrounded mid-high front vowel of the same type as French *é* in *été* ‘summer’, the letter *ə* denotes an unrounded mid-high central vowel, and the letter *ø* denotes a rounded back vowel higher than *o*, with which it forms a harmonic pair. The status of the vowel *ø* was first correctly identified by Ikegami in his paper “On the vowel

The geminated consonants in Orok are an active instrument of morphophonology, that is, they clearly have a phonological status, which substantially distinguishes Orok from the other Tungusic languages with the possible exceptions of Oroch and Solon. As a result, every single consonant phoneme in Orok has a geminate counterpart. Comments on the appearance of geminated consonants in Orok were given by Ikegami (2001: 299), who termed the phenomenon “compensatory doubling”.

As was pointed out above, the accommodational gemination of consonants in Orok is an instrument of morphophonology. The rule of gemination before a long vowel element, including diphthongs, was active until recently and is observed in loanwords, as in *kəččəəli* ‘bucket’ ← Russian *комёл* (note that the Orok perceive the stressed vowels of the Russian originals as long), *səmməəki* ‘lock’ ← Russian *замóк*. However, in present-day Orok, the rule is violated in some loanwords, which means that it is already historical (or “almost historical”), compare, for example, *bilaatu* ‘kerchief’ ← (Ewenki?) ← Yakut *былаат* ← Russian *плат(ок)*, *gumaarinikka* ~ *gumaanikka* ‘purse’ ← Russian *бумажник*.

In native Orok words, the phenomenon of gemination before a long vowel element is observed in the following two cases:

(1) In plain root morphemes, in plain affixal morphemes, as well as in clitics (in this paper affixes and clitics are always quoted in one harmonic variant only), as in: *dawwaan-* ‘to yawn’ < **jawaan-*; *katta arakki* ‘strong alcoholic drink’ < **kataan arakii*; *illau* ‘ritual shavings’ < **ilau*; *-rraa* < **-raa* (converb marker of preceding action); *-kkii* < **-kii* (prolative case ending); *-dda(a)* < **-daa* (conjunctive particle). The absence of gemination before a long vowel element indicates that the vowel was formed by the elision of an intervocalic **k* or **g* (**γ*), as in *anaa* ‘no, none, absent’ (< **anaga*, ACC *anakkaa*, cf. Written Mongol *alaya* ~ *alya* id.), *əməə* ‘saddle’ (< **əməgən*, cf. Written Mongol *emegel* id.), *ločoo* ‘fishhook’ (< **ločoko*, ACC *ločokkoo*) : *ločoočuu* ‘place where fish is angled (for instance, when doing under-ice winter fishing)’ (< **ločoko-čuku*, ACC *ločoočukkoo*), *adau* ‘twin(s)’ (< **adaku*, ACC *adakkoo*, cf. Neghidai, western dialect, *adaku* ‘twins’). Synchronically, it remains unclear whether we are dealing with long (geminated) vowels, or simply with sequences of two identical vowel segments (double vowels or “vowel clusters”).

(2) In fusional sequences of morphemes: a root morpheme plus affix or an affix plus affix, as in: *go*+PTCP.PRS³ *ɣənnəe* ‘going’ (< **ɣənnəi* < **ɣənnə-rî*), *go*+IMP.2SG *ɣənnəu* ‘go!’ (< **ɣənnəu* < **ɣənnə-ru*), NEG-PTCP.PRS-3SG *go*+CONNNEG *ə-si-ni ɣənnəə* ‘(he) does

phoneme *ö* in the Orokko dialect of Tungus” (republished in Ikegami 2001: 136–140).

3 Following the model set by Tsumagari in his sketch of the Orok (Uilta) language (Tsumagari 2009: 4), I use the symbol + to indicate fusional, or “fusible”, endings.

not go' (< **ɣənə* < **ɣənə-rə*); conflagration+ACC *taullo* (*itəxəmbi*) '(I saw a) fire (conflagration)' (< **taulua* < **taulu-wa*); house-DIR+REFL.SG *duku-takki* 'to one's own home' (< **duku-takii* < **duku-taki-wi*). In such cases, an adjustment of vowel heights can take place. This phenomenon is observed when the first morpheme ends in an open vowel and the second morpheme contains a high vowel, as in go-PTCP.PRS **ɣənə-ri* > **ɣənəi* > *ɣənnee*. If, on the other hand, both vowels are identical and high (*i* or *u*), the resulting vowel is short (single), although the preceding consonant is geminated, as in shave-PTCP.PRS *pusi-ri* > *pussi*; -DIR-REFL.SG **-taki-wi* > *-takki*. It may be noted that the loss of an intervocalic *k* or *g* within a morpheme does not result in consonant gemination, while the loss of an intervocalic *r* or *w* at a morpheme boundary does yield a geminated consonant, compare **adaku* 'twin(s)' > *adau* (not **addau*), but go-IMP.2SG **ɣənə-ru* 'go!' > **ɣənəu* > *ɣənəu*.

Gemination is widely used as a tool in Orok morphophonology. For instance, it is observed in cases when a suffixal morpheme is repeated in several syntactically equal parts of the sentence. Thus, the 3rd person plural possessive and personal suffix, which has the lexical shape *-či*, appears in the geminated shape *-ččii* in repetitive constructions like: *əkəsəl doommori paŋgaččukkilil biččiči xooni puli-si-wə-ččii xajwa waa-xam-ba-ččii xaali isu-li-wa-ččii* 'the women longed (for their husbands) and tried to guess, how (they) were going (*xooni puli-si-wə-ččii*), what (they) were catching (*xajwa waa-xam-ba-ččii*), and when (they) would return (*xaali isu-li-wa-ččii*)' (my own materials).

A typologically similar phenomenon is attested in a few Finnic languages and dialects. Known as "secondary gemination", this phenomenon was described for the Izhorian (Ingrian) language by Laanest (1966a: 20, with a reference to Sovijärvi 1944: 12–14, 80–84) as follows:⁴ "Apart from primary (Common Finnic) geminates, as in words of the type *akka* 'old woman', *seppä* 'blacksmith', *ätti* 'father', Izhorian, like also several other Finnic languages, has secondary geminates, formed under certain conditions in later times. A presupposition for secondary gemination was that the consonant was followed by a long vowel or a diphthong, which in most cases was of a contractive origin, as in, for example, *makkān* 'I sleep', *pattā* 'pot' (partitive), *vettāg* 'to drag', *kekkoa* 'pile' (partitive), *küllā* 'village' (partitive)." A discussion of secondary gemination in Izhorian, Vot, and Finnish may also be found in other publications by Laanest (1966b: 22–30; 1967: 35–36). The diachronic background of the phenomenon was already studied in the nineteenth century by Porkka (1885: 45–47).

4 I would like to thank my colleagues N.V. Kuznetsova and M.Z. Muslimov for consultation concerning the issue of "secondary gemination" in Finnic, as well as for directing me to relevant published sources.

3. DEPALATALIZATION

The Orok language has also historically been characterized by the rare process of depalatalization. Due to this process the palatal consonants $\check{c} \check{j} \eta$ developed into the corresponding dentals $t d n$ when followed by any of the vowels $a \varepsilon o \theta u$ (or the corresponding long or double vowels $aa \varepsilon\varepsilon oo \theta\theta uu$), as in: $*\check{j}oon\text{-}\check{j}u\text{-} > doon\text{-}du\text{-}$ 'to remember, to remind', $*\check{c}aag\check{j}an > taagda$ 'white', $*\check{j}nari > nari$ 'man, person, human being'.

There are, however, some exceptions to the rule of depalatalization, for example, $noogdo$ 'yellow, green, blue' (corresponding to a broad area of the colour spectre), $jolo$ 'stone', $\check{c}urga$ 'fist' ($\check{j}urka \sim turga \sim \check{c}urga$ 'fist', SSTM II: 416), $\check{j}akpu$ 'eight', $\check{j}oon$ 'ten' (but: $ilaan\text{-}doo$ 'thirty', $\check{j}iin\text{-}doo$ 'forty' etc., with $-doo < *\check{j}uan$ 'ten'). Interestingly, there are also examples of sporadic palatalization, as in $*dokoloki > \check{j}ooloi$ 'lame' and $narta > \check{j}arta$ 'sleigh' (Petrova 1967: 13). The process of depalatalization was not active before the vowels $i e$ (or $ii ee$).

In the Tungusic languages most closely related to Orok, there are only occasional cases of depalatalization, as in Nanai naj 'man, person, human being' $< *nari < \check{j}nari$, nasal 'eye/s' $< *na\text{-}sal < *ja\text{-}sal$, Ulcha $sugdata$ 'fish' $< *sug\check{j}a\text{-}ta$. Sporadic depalatalization is also observed in some western dialects of Ewenki, as in $daja\text{-}$ 'to hide' $< \check{j}aja\text{-}$ (Vasilevich 1934: 36). However, as a systematic process depalatalization is characteristic only of Orok.

In this connection, it may be noted that depalatalization is occasionally observed in the East Sakhalin dialect of Nivkh, compare, for example, East Sakhalin Nivkh tur 'meat', $toř\text{-}$ 'to go out (of fire)' vs. Amur Nivkh $t'us$, $t'oz\text{-}$. However, for Nivkh this is a sporadic development, while for Orok it is a historical rule. Since depalatalization is a universally rare phenomenon, it is unlikely to have arisen independently in adjacent languages, which means that the Nivkh examples are probably due to Orok influence. This conclusion is confirmed by the fact that depalatalization is also attested in other Tungusic languages, which have not been in direct contact with Nivkh, while it is not attested in the continental variants of Nivkh, which have not been in direct contact with Orok.

In general, it may be assumed that a language that is areally separated from a continuum of closely related idioms, that is, a language that becomes "insular" in the broad sense of the term, can regularize a process which was originally only a sporadic tendency. Such a conclusion is suggested by the situation in which depalatalization is virtually regular in Orok, while it is only occasionally attested in its continental relatives.

4. MORPHOLOGICAL FEATURES

The principle of “insular freedom” is confirmed by the morphological peculiarities of Orok. This may be exemplified by the formation of actor nouns. In Ulcha, “actor nouns are formed by combining present participles with the noun *juu* ‘man, person, human being’, which then becomes a semi-suffix and loses its lexical independence, forming a single lexical complex with the verbal form: *deysi-ju* ‘worker’ (< ‘working man’)” (Sunik 1985: 35–36). In Orok, by contrast, probably because of its isolated location, the corresponding element *-junee* (< **juia*) has maximally expanded its sphere and become a general suffix for ‘humans’, as in *æktə-junee* ‘woman’, *sagji-junee* ‘old person’, *geeda-junee* ‘one person’, *xasu-junee* ‘how many people?’, *tari-junee* ‘that person’, *čipaali-junee-pa-ppoo* all-PERSON-ACC-1PL.OBL ‘all of us’, *sokto-xo-junee* to.become.drunk-PTCP.PST-PERSON ‘a drunken person’, *naa-junee-ni* land-PERSON-3SG ‘human being living on earth’ (a folkloric expression).

Particularly many idiosyncratic features are encountered in Orok verbal morphology, which seems to have undergone a profound transformation. Moreover, this transformation seems to have taken place mainly due to internal, rather than external, factors.

An example of a feature that has undergone maximal transformation in Orok is offered by the irrealis, as pointed out by A.Yu. Urmanchieva (pers. comm.). Developments whose initial stages can be observed in Ulcha were substantially complemented in Orok. Thus, the combination of the participle of uncompleted action in *+ri* with the suffix *-la-* (< **-lan-*, of unknown origin) yields in Ulcha the future tense marker *+rila-*. Ulcha also has the voluntative marker (‘let us...!’) *+risu*, in which the element *-su* diachronically represents the 2nd person plural ending.⁵ In addition to these two “continental” innovations, Orok developed other forms based on *+ri*: the subjunctive in *+rila-xa(n-)* (FUT-PTCP.PST-),⁶ the 1st person singular optative in *+ri-tta*,⁷ the 3rd person imperative in *+ri-llo* (*+ri-lo*),

5 Note that we have here a personal ending of the 2nd, and not of the 1st, person. The situation may be compared with Russian colloquial forms of the type *пойд-ём-ме*, though in the latter we have a combination of the 1st and 2nd person endings.

6 In the Ulcha folkloric texts published by O.P. Sunik I have found one example of a similar subjunctive form: *Мин ана бимчэи, амба иктэдуни бйлэхэси* ‘If I had not been (here/there), you would have been in the teeth of the evil spirit’ (Sunik 1985: 85, 140). Interestingly, in this irreal-conditional sentence there is no conditional converb: the dependent clause has the old Tungusic subjunctive form (*би-мчэ-и*), while the main clause has the new form (*бй-лэхэ-си*). The Orok subjunctive form is actually a participle, e.g.: *juanneelaxəmbəwuee boo kappuuxani* ‘terrible weather prevented me from going’ (Ikegami 1997: 96), *juanneelaxəmbəwuee* go+PTCP.SBJV-ACC-1SG.OBL. Typologically this is a rare and interesting feature.

7 As noted by Ikegami (2001: 37), the suffixal complex *-ri-tta* expresses “the speaker’s intention to perform an action later on”.

and the probabilitive in *+ri-li-* (PTCP.PRS-FUT).⁸ Such “freedom of grammatical creativity” may be seen as another indicator of the above-mentioned principle, according to which a sporadic phenomenon can become regular when a language is separated and isolated from an original continuum of related idioms.

As we can see, the Orok language has created new verbal affixes by way of compounding affixes into complex sequences. Apart from the participial marker *+ri*, the verbal affix *+ra*, sometimes mistakenly identified as a participial marker, was used as a “base affix” for complex forms, as in: *+ra-kka* “present action witnessed by the speaker”,⁹ a form referring to the 3rd person singular (in the other persons, somewhat different forms are used, cf. Tsumagari 2009: 9), *+ra-ŋa-* “the occurrence of an action in the distant future, the occurrence of an action in the future that the speaker thinks possible, or the occurrence of an action in the future that the doer is compelled to perform” (Ikegami 2001: 27).

We should also mention the verbal form in *-li-*, which seems to be absent in all other Tungusic languages. This form is actively used in the idiolects of E.A. Bibikova and I.Ya. Fedyaeva. It has been described as a future tense marker both by the present author (Pevnov 2009: 120–121) and by Yoshiko Yamada, who has a paper devoted to this particular marker (Yamada 2010).

Judging by the texts collected by the present author from E.A. Bibikova and I.Ya. Fedyaeva, *-li-* may be understood as a marker of a future participle (1–2):

- (1) *bii saa-ri-wi sii sinda-li-wa-si*
 1SG know-PTCP.PRS-1SG 2SG come-PTCP.FUT-ACC-2SG

‘I know that you will come.’

- (2) *...isu-li-čĭ lakəə bii-ni*
 return-PTCP.FUT-3PL close+EMPH be+PTCP.PRS-3SG

‘They will return very soon.’

The form in *-li-* is normally used as a predicate (3–6) (the examples are from my own materials):

8 The verbal form in *+ri-li-* is characterized by Ikegami (2001: 69) as follows: “In the combination of the verb ending *-ri-* plus the ending *-li-* plus the personal or reflexive ending, the ending *-li-* appears. This ending seems to be a verbal-noun-forming ending meaning ‘likelihood’ [...] Some examples are: *dabjilini* ‘it is likely that he will win’, *məənə moolleelini* ‘he is likely to go to gather firewood by himself’”.

9 In the idiolect of I.Ya. Fedyaeva there is an additional present-tense form in *+ri-kka*, as in: *maludu ənəkə təəsini, xajwa=ka ulpeekkə* ‘mother is sitting at the back of the dwelling, (she) is sewing something’.

- (3) *xaali mut-təj sinda-li-se*
 when 1PL.OBL-DIR come-PTCP.FUT-2SG.WHQ
 ‘When will you come to us?’
- (4) *ər əsi buu xaay-li-pu*
 this now 1PL reach.land-PTCP.FUT-1PL
 ‘Now we will reach the shore.’
- (5) *ča-yyu-bi okčiči-pissa-mali čala yənə-li-wi*
 that.OBL-ALIEN-REFL.SG heal-CVB-ONLY in.that.direction go-PTCP.FUT-1SG
 ‘After healing them (my wounds), I will go there.’
- (6a) *aunda-li-si min-du*
 stay.overnight-PTCP.FUT-2SG 1SG.OBL-LOC
 ‘Will you stay overnight at my place?’
- (6b) *ii, aunda-li-wi*
 yes stay.overnight-PTCP.FUT-1SG
 ‘Yes, I will’.

Orok has, consequently, participial markers for three tenses: past, present, and future, marked by *-xa(n-)*, *+ri-*, and *-li-*, respectively. This is similar for instance to Ewenki, while Ulcha and Nanai, as well as Manchu, have no future participle.

5. LEXICON OF UNKNOWN ORIGIN

Orok has a number of lexical borrowings from Ewenki, Nivkh, and Russian, possibly also from Yakut. In addition, there are a few isolated Ainu and Japanese loanwords.

Of particular interest are lexical items of unknown origin, that is, items which are peculiar only to Orok and for which no etymology is known. It is noteworthy that among them there are many items of general vocabulary. Such items include *səgdə-* ‘to fly’, *isu-* ‘to come back’, *kaapa-* ‘to ascend, to climb’, *əksə-* ‘to put, to preserve’, *məətələ-* ‘to throw, to cast, to throw away’, *təjdu-* ‘to put on’ (Ozolinya 2001: 364), *bagduxu* ‘clothes’, *əčči* ‘somebody or something similar or identical’ (*əri tari əččini* ‘this one is the same as that one’) (Ikegami 1997: 54), *kəən-* ‘to speak, to talk’, *ləədən-* ‘to talk’ (Ozolinya 2001: 175), *xəwəči-*

'to call', *aji* 'shadow', *kadara* 'big',¹⁰ *poo* 'place', *kerøktø* 'tooth', *kotoo* 'finger, toe', *xoombo* 'throat', *oo* 'corner (interior and exterior)', *taldaa* 'middle', *otokoo* 'afterwards', and *mali* 'one of a pair' (*mali-muna* one.of.a.pair-COM 'both, of paired things').¹¹ Another item that may belong to this group is *geeda* 'one', which has been compared with Ewenki *gee* 'another, one of two' (SSTM I: 144); this comparison is problematic, however, since neither the base **gee-* nor the derivational affix **da* is otherwise attested in Orok.

It may be noted that the items of unknown origin comprise several words pertaining to reindeer husbandry: *jaandu* 'pasture' (SSTM I: 341), *joonopu* 'stick for steering a reindeer sledge' (*-pu* is an Orok derivational affix, indicating instruments of action), *lillu* 'a belt with which a reindeer-sledge is tied to a tree' (SSTM I: 498), *nuw-* 'to feed (up) reindeer' (SSTM I: 607), *saruka* 'fence for reindeer' (SSTM II: 67), *xəxə* 'a cross-breed of domestic reindeer and wild reindeer' (SSTM I: 480), as well as several others.

Of particular interest is *ulaa* 'domestic reindeer', a word of utmost importance for the Orok. Among the Tungusic languages, this word has a cognate only in Oroch (*ulaa* 'domestic reindeer'). With the help of internal reconstruction, Orok *ulaa* can be derived from earlier **ulayar*.¹² This brings to mind Mongolian *ulayan* (> *ulaa/n*) 'relay horses, relay transportation', Manchu *ula* (*ulaa*?) 'postal horses', Old Turkic *ulay* 'pack animal, horse for riding'. Manchu also has the verbal stem *ula-* 'to convey, to send by post, to deliver' (Zakharov 1875: 157). The Manchu verb was probably borrowed from Mongolian, though the plain stem is not attested on the Mongolic side. Of course, if Orok *ulaa* is really connected with these words in Manchu, Mongolian, and Turkic, it does not necessarily mean that the reindeer was used for relay transportation, though this possibility cannot be ruled out.¹³ However this may be, it may be assumed that the Orok term for

10 Note that the word *kadara* 'big' is homonymous with *kadara* 'whale' (Ikegami 1997: 93).

11 The word *mali* 'one of a pair' has also been grammaticalized into an affix with the meaning 'only', cf. e.g. (the following examples are from my own materials): *məə-pi-məli ajawwookki bi-čči-ni* self-REFL.SG-ONLY love+PTCP.HABIT be-PTCP.PST-3SG '(she) loved only herself'; *xooni si ər gata-čči-see ačiraj-mali-mali* how 2SG this pick.berries-PTCP.PST-2SG+WHQ scrap-ONLY-ONLY 'why did you pick only scrap (instead of berries)?' (the form with the unusual affixal reduplication expresses a direct object but, inexplicably, it has no accusative marker); *...ačiraj-mali-l-ba gata-čči-si* scrap-ONLY-PL-ACC pick.berries-PTCP.PST-2SG '...(you) picked only scrap' (in this sentence the affix *-mali* forms a secondary nominal base which takes the regular affixes for number and case).

12 This reconstruction is suggested by the accusative form, which is *ulaa-ba* (< **ulayar-ba*). The allomorph *-ba* of the accusative case marker typically appears after stems originally ending in *-r, as also in *dəə-bə ~ duu-bə* (< **jəər-bə ~ *juur-bə < *juər-bə*) two-ACC.

13 European travellers in the 14th to 15th centuries note that even dogs were used as relay animals in Siberia in the Middle Ages. I thank P.O. Rykin for consultation concerning the history of relay transportation in Mediaeval Asia.

'domestic reindeer' came to Sakhalin together with reindeer husbandry from the region of the Greater Khingan Range, where populations speaking Tungusic and Mongolic have been in contact since ancient times.

Apart from the items connected with reindeer husbandry, Orok also has a number of maritime terms of unknown origin, such as, for instance, *askuttu* 'octopus', *lukku* 'small seal' (SSTM I: 508), *maduruku* 'a rope made of seaweed' (SSTM I: 520),¹⁴ *yana* 'lance for hunting seals' (SSTM I: 657), *saunaa* 'seal flipper', *taxakka* 'crab'.

6. LOANWORDS FROM NIVKH

The Nivkh lexical borrowings in Orok may be divided into two categories: continental and insular. The items in the former group are attested also in other Tungusic languages. An example is Orok *taixunji* 'sea god' (= 'mythological ruler of the sea'), Oroch *taixunja* 'female ruler of the sea and fish' (a mythological word, Avrorin & Lebedeva 1978: 229), Neghidal *tajxuldin* 'the ruler of waters and fish' (SSTM II: 152),¹⁵ compare Nivkh *tajrxand* 'the ruler of the sea, who sends fish and seals to the Nivkh' (Kreinovich 2001: 505).¹⁶ L.Ya. Shternberg noted that, according to the conceptions of the Nivkh, the Milky Way represents the track of the skis of the Sea God Tajrxand (Shternberg 1908: 170). Takeshi Hattori, who worked with the Nivkh of the Poronaisk region, recorded the word *tajyyant* 'god; the creator of human beings and of the universe, and of everything contained in it', compare also *bal řajyyant* 'mountain god', *dol řajyyant* 'sea god', *tlā řajyyant* 'sky god' (Yamaguchi & Izutsu 2004b: 55). Interestingly, the name of the sea god *Tajrxand* (*tajyyant*) in Nivkh looks like a verbal form with the suffix **-nd* (**-nt*), as was already noticed by Hattori. It is also interesting to note that this suffix is represented as *-nd-* (> *-nǰ-*, *-ld-*) in the Tungusic data, although it is represented as *-j* in the modern Amur dialect of Nivkh.

Another example is offered by Orok *mambakka* 'mittens (made of fur)',¹⁷ Ulcha *wagbaji* 'mittens (with the inner side made of dog skin and the outer side made of fish skin)', Udeghe *wambaxi* 'mittens', Oroch *wabaxə* 'autumn mittens made

14 Cf. *madururukku* 'straw rope' (Ikegami 1997: 116).

15 The Neghidal word *tajxuldin* 'ruler of fish' was recorded by L.Ya. Shternberg (1933: 547). The underlying Neghidal form might also have been **tajxunjin*.

16 The grapheme *ɤ* denotes here and below a voiced uvular continuant.

17 According to E.A. Bibikova, "women normally pronounce (the word as) *mambakka*, while men pronounce (it as) *mambaqqa*".

of fish skin', compare Amur Nivkh *vamq* 'mittens'.¹⁸ Interestingly, the Nivkh word has penetrated even to Manchu, compare Manchu *babuxa* ~ *babuxan* 'glove(s)'. Although all these items are clearly of a common origin, the phonetic correspondences between them are not regular. Even so, the Nivkh origin of the word is indicated by the presence of the element *-q*, which is also attested in several other Nivkh terms denoting types of clothing, such as *lar-q* 'shirt, female dress', *ba-q* 'hat, headgear of any type', *o-q* 'furcoat'.

"Insular" lexical borrowings from Nivkh in Orok are not particularly numerous. Following are some items not previously identified as such:

Orok *saa*, *saada* 'where?', *saala* 'whither? to what place?' (SSTM II: 66), compare the Nivkh (Amur dialect) interrogative root *řa-*: *řag*, *řain* 'where? at what place?', *řakrux* 'from where?', *řajs* 'how many?' (in the East Sakhalin dialect the interrogative root is *t^ha-*);

Orok *pulakkaari* 'for the first time', cf. Nivkh (Amur) *p^hlaqr* 'suddenly';

Orok *čonoo* 'corner (interior, e.g. in a house)' (accusative form *čonokkoo* indicates that *čonoo* < **čonoko*), cf. Nivkh (Amur) *t'on'x* 'corner'; interestingly, in Orok there is another word of unknown origin, *oo* (< **oko* or **oyo*), which also means 'corner (interior and exterior)';

Orok *taulu* 'fire (conflagration)', cf. Nivkh (Poronaisk) *tawlay* 'smoke (from fire)' (Yamaguchi & Izutsu 2004b: 55);

Orok *koo* 'ice (floating on the river)', cf. Nivkh (Poronaisk) *qo* 'ice in spring' (Yamaguchi & Izutsu 2004a: 30);

Orok *lamu* 'small wave', cf. Nivkh (Poronajsk) *lam* 'small wave' (Yamaguchi & Izutsu 2004a: 30);

Orok *laata* 'large wave', cf. Nivkh (Amur) *lar* 'wave', Nivkh (Poronaisk) *laři* 'large wave' (Yamaguchi & Izutsu 2004a: 30);

Orok *čilanai* 'north wind', *čilanjaj* 'east wind' (my own materials), cf. Nivkh (East Sakhalin) *tlay* ~ *tlayi* 'east wind' (Kreinovich 2001: 506);

Orok *aami* 'ring, worn on the thumb during shooting with a bow and arrow' (SSTM I: 37), cf. Nivkh (East Sakhalin) *arm* 'ring, worn on a finger when drawing the string of a bow' (Kreinovich 2001: 487);

Orok *kalamuri* 'board, plank', cf. Nivkh (East Sakhalin) *qalmr* 'board, plank' (Kreinovich 2001: 493);

Orok *muskəri* '(a sort of) poplar', cf. Nivkh (East Sakhalin) *mus'kər* 'poplar' (Kreinovich 2001: 498); according to Ozolinya (2001: 194) the Orok word

18 The Nivkh data for which no other source is indicated are quoted from the dictionary of Savel'eva & Taksami 1970.

muskari also denotes a kind of boat; in view of this, the Nivkh word *mus'kar* is probably derived from *mu* 'boat', because Sakhalin Nivkhs made their boats by hollowing out trunks of poplar (Taksami 1975: 66–67);

Orok *kar̄ka* 'lily bulb (edible)', cf. Nivkh (East Sakhalin) *qarq* 'edible bulb of wild lily' (Kreinovich 2001: 494), this word was also recorded by Savel'eva and Taksami (1970: 141);

Orok *čuu* 'fairway, waterway' (my own materials), cf. Nivkh (East Sakhalin) *č^hu* 'fairway, waterway' (Kreinovich 2001: 513);

Orok *panču* 'axe', cf. Nivkh (East Sakhalin) *pand'u* 'tool resembling an axe (something like a pole-axe)' (Kreinovich 2001: 502); Orok lacks the Common Tungusic word for 'axe' (**sukə*), which is a Mongolic loanword, and instead uses three other loanwords, probably denoting different kinds of axes: *toporo* (< Russian *monop*), *masaari* (< Japanese *masakari*), and *panču* (< East Sakhalin Nivkh *pand'u*);

Orok *qayai* ~ *qayaj* 'navaga (*Eleginus gracilis*)' (SSTM I: 374), *kaayai* 'a kind of fish', *kaayai əmini* 'cod' (Ikegami 1997: 92, literally 'kaayai's mother'), cf. Nivkh (Amur) *qayi* 'navaga';

Orok *xairi* 'red fish roe', cf. Nivkh (Amur) *həyr* 'fish roe, caviar' (in the East Sakhalin dialect 'fish roe' is *ɲauk*);

Orok *udala* ~ *udal* 'frog', cf. Nivkh (Amur) *ral* 'frog'; apparently, the archetype of the Nivkh item has to be reconstructed as **udal* (cf. also Nivkh *la* 'Amur', which is possibly borrowed from Jurchen-Manchu *ula* 'large river');

Orok *doro* 'North Sakhalin', cf. Nivkh *tro* 'Tro' (= the eastern coast of Sakhalin); these items might also be borrowings into both Nivkh and Orok from some substratal language;

Orok *ɲatuku* 'hand' (nursery word), cf. Nivkh (East Sakhalin) *ɲat'x* 'foot, paw' (Amur Nivkh *ɲət'x*); the Orok nursery word for 'foot' is *bəjiku*, cf. the "adult word" *bəgji* 'foot'.

It is remarkable that, in spite of the generally relatively weak lexical influence of Nivkh on Orok, Orok has also borrowed a few items of basic vocabulary from Nivkh, such as Orok *xababi* 'lung(s)', compare Nivkh *havaf* 'lung(s)'; Orok *ɲojokko* 'egg', compare Nivkh *ɲojeq* 'egg'; Orok (Northern dialect) *qod'i* 'neck', compare Nivkh *q^hos* 'neck'; Orok *uniyəri* 'star', compare Nivkh *un'yr* 'star' (a comparison made by Ikegami 1997: 220).

As far as grammatical forms are concerned, it may be taken for certain that Orok has borrowed the 2nd person imperative marker *-ja* (plural *-ja-ltu*) from the corresponding Nivkh marker *-ja* (as in *vi-ja* 'go!'). According to Tsumagari (2009: 8), the Orok form in *-ja* is "polite". My own observations suggest that this form has a "concessive-conciliatory" meaning, as in: *gə ɲənə-jə ɲənə-jə* 'all right,

go, go!’ (this example is from a text dictated to me by E.A. Bibikova in 2013). It is possible that there is also an example of the borrowing of an imperative marker in the opposite direction: according to V.Yu. Gusev (2015: 66): “We can suppose that the meaning of the 1SG imperative was originally expressed in Amur Nivkh by means of the future tense, as it still is the case in Sakhalin Nivkh. Later the Negidal *-kta* (and not just *-ta*) was borrowed as an indivisible marker and attached to the future tense form. This combination was certainly facilitated by the lack of personal markers in this form.” To be more exact: in Amur Nivkh, the imperative form is marked by the compound suffix *-nə-kta* (*-nə-xta*), which is used in reference to the 1st person in both singular and plural (Panfilov 1965: 131). If the component *-kta* in this suffix is really of Tungusic origin, the borrowing is likely to have taken place a relatively long time ago from Ewenki, rather than more recently from Neghidal.

There is at least one example of a structural borrowing from Nivkh to Orok. In both languages, there are special means for marking polar questions (yes-no questions) and non-polar questions (wh-questions). In Nivkh, polar questions are marked by the particle *la* (*l*), whereas non-polar ones are marked by the particles *ya* and *ata* (*at*) (Panfilov 1965: 165–167). According to Tsumagari (2009: 14–15), in the southern dialect of Orok (Uilta), interrogative sentences are formed as follows: “An interrogative clitic *-i* ~ *-yi* is added to the end of yes-no questions, with which a rising intonation is usually accompanied [...] For wh-questions, there is another interrogative clitic *-ga* ~ *-ka*, which is omissible.” In my data collected in the northern part of Sakhalin, non-polar questions are formed in a different way. Consider the following examples (7–11):

- (7) *sii purən-du sinda-xa-si*
 2SG taiga-LOC/ABL come-PTCP.PST-2SG
 ‘You came from taiga.’
- (8) *xaj-du sii sinda-xa-see*
 what-LOC/ABL you come-PTCP.PST-2SG+WHQ
 ‘Where did you come from?’
- (9a) *nataša-yu-si=ka xooni bii-nee*
 Natasha-ALIEN-2SG=PART how be+PTCP.PRS-3SG+WHQ
 ‘And what about your Natasha?’

- (9b) *ujuu=j*
 alive=YNQ
 'Is she alive?'
- (9c) *ɲussaa*¹⁹
 who.knows
 'I don't know.'
- (10a) *čeennee xajmi tarayači ə-čči-si təsü-see*
 yesterday why like.that NEG-PTCP.PST-2SG gather.berries-CONNeg+WHQ
 'Why didn't you gather berries in such a way yesterday?'
- (10b) *baaji-či-si=i*
 be.lazy-PTCP.PST-2SG=YNQ
 'Were you lazy?'
- (11a) *xajmi mutu-ǰǰi-soo*
 why come.back-REP+PTCP.PRS-2PL+WHQ
 'Why do you come back?'
- (11b) *bara suntattaa dapa-xa-su=j*
 many fish+ACC catch-PTCP.PST-2PL=YNQ
 'Did you catch a lot of fish?'

As may be seen, in polar questions, the verb in the northern dialect of Orok takes the clitic *-i ~ -j*. In non-polar questions, the vowel of the verb personal marker or the connegative affix changes both qualitatively and quantitatively (it is widened and prolonged).

7. CONCLUSION

On the basis of the above brief contrastive description of the Orok language in comparison with the other Tungusic languages, we may arrive at the following conclusions.

In the realm of historical phonology Orok is characterized by (1) the relatively consistent rule concerning the regressive accommodation of consonants to the

19 *ɲussaa* 'I don't know' < **ɲui saari* who know-PTCP.PRS.

length of vowels and (2) the likewise relatively consistent tendency of depalatalizing the original palatal consonants $\check{c}\check{j}n$ into $t d n$ before the vowels $a \text{ ə } o \text{ } \theta \text{ } u$ (or $aa \text{ } \text{əə } oo \text{ } \theta\theta \text{ } uu$). The former rule is actively used in the synchronic morphophonology of the language.

The system of verbal conjugation in Orok has undergone substantial restructuring, especially as far as the irrealis is concerned. This seems to have happened mainly due to internal, rather than external, causes. Some of the special features of Orok verbal morphology may be explained as consequences of the principle of “insular freedom”, implying that a language that is areally separated from a continuum of closely related idioms can regularize phenomena that may originally have been only sporadically occurring.

The Orok lexicon contains a relatively large number of loanwords, including items that are not present in the other Tungusic languages. There are only a few loanwords from Ainu and Japanese, somewhat more from Russian and Ewenki, and possibly also from Yakut. The number of loanwords and structural borrowings from Nivkh is larger, but still smaller than might be expected in view of the fact that the Orok and Nivkh languages on Sakhalin share a prolonged history of coexistence in their insular environment. Finally, Orok has many lexical items of unknown origin — indeed, so many that their number probably exceeds that of all identifiable loanwords. However, the number of such enigmatic items tends to decrease with the discovery of previously unidentified Nivkh elements in Orok. On the other hand, some of the items shared by Nivkh and Orok may ultimately have been borrowed from some unknown substratal language(s) that would have been previously spoken on Sakhalin.

ABBREVIATIONS

1	first person	HABIT	habitual action
2	second person	IMP	imperative
3	third person	LOC	locative
ABL	ablative	NEG	negation
ACC	accusative	OBL	oblique
ALIEN	alienable possession	PART	particle
COM	comitative	PL	plural
CONNEG	connegative	PROL	prolative
CVB	converb	PRS	present
DIR	directive	PST	past
EMPH	emphasis	PTCP	participle
FUT	future	REFL	reflexive

REP	repetitive	WHQ	wh-question
SBJV	subjunctive	YNQ	yes-no question
SG	singular		

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