

Phonetic and lexical innovations in Ob-Ugric dialects in the 18th—21st centuries: new archival and field data

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This paper offers a comprehensive analysis of proximity between the dialects within Khanty and Mansi languages, which form the Ob-Ugric group within the Uralic languages. Even though they are thought to be closely related, research has shown the discrepancy between the phonological and lexicostatistical distance between Khanty varieties vs. Mansi varieties.

In the article, innovations in phonology, morphology and basic vocabulary are brought together and compared. New data from archives (18th century) and latest fieldwork shed the light on chronology of phonetic, morphological and lexical changes. Using comparative method, it is shown that in the late 18th century Mansi dialects were still not very distant from each other. Moreover, phonetic differences which hindered mutual understanding between speakers of eastern and northern dialects in the 20th century became distinctive not earlier than 250 years ago. On the contrary, Khanty dialects were as distant as separate languages back in the late 18th century. Judging by glottochronological calculations, the time of divergence of contemporary Kazym and Vakh Khanty can be dated back as early as the beginning of the first millennium AD. These Khanty varieties have more differences than any Slavic and even Turkic (except Chuvash) languages between each other. Therefore, they should be counted as different languages, not dialects.

Overall, from the extensive analysis of phonetics, morphology and basic vocabulary, it is proved that Mansi varieties were still dialects (until all but one became extinct) and Khanty varieties were separate languages when they were first recorded in the late 1700s.

Keywords: Ob-Ugric languages, Khanty, Mansi, phonetic innovations, lexicostatistics, glottochronology

ФОНЕТИЧЕСКИЕ И ЛЕКСИЧЕСКИЕ ИННОВАЦИИ В ДИАЛЕКТАХ ОБСКО-УГОРСКИХ ЯЗЫКОВ В XVIII—XXI ВВ.: НОВЫЕ АРХИВНЫЕ И ПОЛЕВЫЕ МАТЕРИАЛЫ

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В статье проводится комплексный анализ близости между диалектами хантыйского и мансийского языков — обско-угорской ветви уральской семьи. Несмотря на то, что эти языки традиционно считаются близкородственными, исследования показывают неравномерность в близости хантыйских диалектов между собой по сравнению с мансийскими по фонетическим изоглоссам и процентам совпадения в базисной лексике.

Исследование сводит воедино и сопоставляет инновации в фонологии, морфологии и базисной лексике обско-угорских языков. Новые материалы из архивов (XVIII в.) и новейшие полевые исследования проливают свет на хронологию фонетических, морфологических и лексических изменений. При помощи сравнительно-исторического метода показано, что в конце XVIII в. мансийские диалекты все еще были достаточно близки, а фонетические различия, которые мешали взаимопониманию между носителями восточных и северных диалектов в XX в., стали появляться не ранее 250 лет назад. Напротив, еще в конце XVIII в. хантыйские диалекты были далеки друг от друга, как отдельные языки. По глоттохронологическим расчетам, время распада предка современных казымских и ваховских ханты можно датировать еще началом первого тысячелетия нашей эры. Эти хантыйские идиомы имеют больше различий, чем любые славянские и даже тюркские (кроме чувашского) языки между собой.

Из результатов комплексного анализа фонетики, морфологии и базисной лексики следует, что мансийские идиомы (до исчезновения восточных диалектов в начале XXI в.) все еще были диалектами, хантыйские идиомы были уже отдельными языками, когда они были впервые засвидетельствованы в конце XVIII в.

Ключевые слова: обско-угорские языки, хантыйский язык, мансийский язык, фонетические инновации, лексикостатистика, глоттохронология

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One of the most prominent issues in comparative historical linguistics is the possibility to date language divergence. Such significance is connected with the fact that datings are used by other researchers: geneticists, archaeologists, historians. As it is so important to get the most precise datings, comparative linguists should assess the time of language divergence not only using lexicostatistical calculations (suggested by M. Swadesh and modified and refined by S. A. Starostin), but also taking into account innovation processes on other levels of language system: phonetics and morphology.

At present, a great number of the first dictionaries and books in Uralic and Altaic languages created in the 18th—19th centuries have been found in archives of Saint-Petersburg and Kazan, as well as in libraries outside Russia. Some of them have been digitally processed. Based on these data, online etymological dictionaries were created that connect materials of the archival books with contemporary dialects and glossed corpora at the platform LingvoDoc (www.lingvodoc.ispras.ru). Having substantial number of archival sources of 18th—19th centuries in almost all divisions of the Uralic and Altaic languages at our disposal allows us to assess change rate in dialects for the last 250 years. Using computational methods for the full available language material (on average 400 to 1500 lexemes), it is possible to calculate the number of phonetic and morphological innovations and make correspondences between these data and proximity rates gained by lexicostatistics for each of the languages.

Such analysis should answer the question if it is possible to develop a speed rate of change not only for the lexicon, but also for morphology and phonetics. Are there instances when phonetic and morphological changes happen very fast and they should not be taken into account like influx of lexical borrowings during intensive contacts with speakers of other languages? Should all the phonetic innovations be equally assessed? Or instead should we distinguish between the instances when sounds are close to each other by place and manner of articulation, e. g. **k > x*, and when are very different, e. g. **l > t*, because the latter undergo a series of intermediary changes?

A final answer to these questions needs further work, as the sufficient statistics for changes should be compiled to answer them. In this paper we are going to show a piece of analysis of Ob-Ugric material from this perspective. All the available archival materials and field sound recordings have been presented to the scholarly community. At present, 36 Khanty and 21 Mansi dictionaries and concordances are available on the LingvoDoc platform. As has been mentioned, the average volume of the dictionaries is 800 lexemes.

M. A. Zhivlov has conducted lexicostatistical calculations mostly based on the dictionaries that were compiled from the materials collected in the 19th century: Mansi [Munkácsi, Kálmán 1986] and Khanty [DEWOs] with addition of contemporary data on the dialects [Tereshkin 1961; Solovar 2006]. For Mansi the minimal lexicostatistical distance between northern and eastern dialects is 87%, for Khanty it is 73%.

Overall these results are quite unusual, as 65—73% distance between Khanty dialects noted by researchers [Zhivlov 2011; Fedotova in print] are typical not for dialects, but for different languages of Slavic, Germanic and Turkic families, according to [Burlak, Starostin 2005]. Consequently, M. A. Zhivlov dates the divergence of Mansi dialects 300—400 AD and Khanty dialects 100—200 AD (see [Zhivlov 2011]).

Surprisingly, morphological differences in Mansi dialects “are not significant or substantial for classification of dialects”, as is shown in [Koshelyuk 2021: 279], the vast majority of morphological markers in Mansi dialects are the same, whereas the differences between them are caused by phonetic processes that have taken place in these dialects. On the contrary, western and northern Khanty dialects have big differences in morphology, for example the number of nominal cases in the western are 3—4, whereas there are 8—9 in the eastern, according to [Solovar, Nakhracheva, Shiyanova 2016]. Is it possible that the time of divergence of Mansi and Khanty was only two centuries apart, the speakers lived close to each other and in the similar language environment, but in Mansi dialects morphological markers have survived without change, while in Khanty dialects they differ more than in Permic, Fennic or Slavic languages?

The first 18th century dictionaries that we found in Saint-Petersburg Archive of the Russian Academy of Sciences and uploaded to the platform LingvoDoc allow us to solve the issue of such discrepancy of the rate of morphological differences in dialects of Mansi and Khanty.

I. Differences in graphics and phonetics in manuscripts of Mansi dialects of the 18th century

As J. Gulya shows based on unpublished archival data, and Yu. Normanskaya based on the online dictionaries on LingvoDoc (see further [Gulya 1958, 1963; Normanskaya 2022]), **Mansi dialects almost did not have phonetical differences in the 18th century**. The ample differences recorded since the early 19th century only started to emerge in the 18th as duplicate forms.

See below the table for distinguishing features of Mansi dialects based on the following dictionaries¹:

- northern dialects compiled by P. S. Pallas in village Beryozovo:
<http://lingvodoc.ispras.ru/dictionary/3066/11/perspective/3066/14/view>
- unlocated, found in A. Sjögren's archive in Saint Petersburg, having both northern and western features, see [Normanskaya, Kosheliuk 2020] for analysis:
<http://lingvodoc.ispras.ru/dictionary/1393/29131/perspective/1393/29132/view>
- western dialects, published by P. S. Pallas:
Solikamsk: <http://lingvodoc.ispras.ru/dictionary/867/9/perspective/867/10/view>
Cherdyn: <http://lingvodoc.ispras.ru/dictionary/2685/846/perspective/2685/847/view>
Kungur: <http://lingvodoc.ispras.ru/dictionary/2685/6/perspective/2685/7/view>
Verkhoturys: <http://lingvodoc.ispras.ru/dictionary/2685/1653/perspective/2685/1654/view>
Ust'-Uls, recorded by Major Karpinsky in the M. A. Castrén's archive:
<http://lingvodoc.ispras.ru/dictionary/3096/54761/perspective/3096/54762/view>

Table 1. Reflexes of Proto-Mansi phonemes in the first dictionaries of 18th century

Proto-Mansi, Honti	Proto-Mansi [Normanskaya 2022]	Beryozovo Pallas	Unlocated Pallas	Solikamsk Cherkalov	Cherdyn Pallas	Kungur Pallas	Verkhoturys Pallas	Ust'-Uls Castrén
* <i>ā</i>	* <i>ā</i>	<i>o/a</i>	<i>o</i>	<i>o</i>	<i>o/a</i>	<i>o/a</i>	<i>o/a</i>	<i>o/a/oa</i>
* <i>ī</i>	* <i>a</i>	<i>a/e</i>	<i>a/aa</i>	<i>e/a</i>	<i>a/i</i>	<i>a/e</i>	<i>o/a</i>	<i>o/e/ea/aa/u</i>
* <i>ȳ</i>	* <i>ȳ</i>	<i>0/-y/-j</i>	<i>0/-y/-u/-j</i>	<i>0/-y</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0/-y/-χ/-j</i>
* <i>č</i>	* <i>č</i>	<i>č/-z-</i>	<i>č/-z-</i>	<i>č/s</i>	<i>č/š</i>	<i>s</i>	<i>č</i>	<i>č/s</i>
* <i>k</i> _Vback		<i>χ</i>	<i>k/χ</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>
* <i>š</i>		<i>š</i>	<i>š</i>	<i>š</i>	<i>š</i>	<i>š</i>	<i>š</i>	<i>š</i>

As table 1 demonstrates, Proto-Mansi phonemes that are relevant for classifying Mansi dialects in the late 19th century (the first column)² did not have the distinct reflexes in the western and northern dialects. The Proto-Mansi shift **ā* > *o*, which occurred in the 19th century in all dialects except southern, according to L. Honti, in the 19th century was not completed in Beryozovo (northern), Kungur, Verkhoturys, Cherdyn and Ust'-Uls (western) dialects.

II. Differences in graphics and phonetics in manuscripts of Khanty dialects of the 18th century

On the contrary, **Khanty dialects were significantly different in phonetics**, see below table 2 based on the analysis of Khanty 18th century materials from A. Sjögren's fund № 94 "Linguistic materials collected by academician P. S. Pallas":

- 1) Narym district (Vasjagan dialect):
<http://lingvodoc.ispras.ru/dictionary/2639/4152/perspective/2639/4156/view>;
- 2) Vasjagan dialect: <http://lingvodoc.ispras.ru/dictionary/2059/5674/perspective/2059/5675/view>;
- 3) Surgut district (Lumpokolskoye dialect):
<http://lingvodoc.ispras.ru/dictionary/2639/77/perspective/2639/81/view>;
- 4) Salym dialect:
<http://lingvodoc.ispras.ru/dictionary/1827/6/perspective/1827/7/view>;
- 5) Irtysh dialect: <http://lingvodoc.ispras.ru/dictionary/1674/4209/perspective/1674/4210/view>;
- 6) Beryozovo dialect: <http://lingvodoc.ispras.ru/dictionary/2639/4221/perspective/2639/4225/view>;
- 7) dialect of Tobolsk district:
<http://lingvodoc.ispras.ru/dictionary/2516/17279/perspective/2516/17283/view>.

The table shows that the majority of changes occurred in Tobolsk dialect of the 18th century. It saw the following innovations: Proto-Khanty **a* > *o*, **ɔ* > *u*, **l* > *t/ɬ*, **č* > *t*, **w* > *0*_u and a number of processes that had started but were not completed: **č* > *š*, **λ* > *ɬ*, **kV* > *x*.

¹ For more information about the places of residence of Mansi in the 17th—20th centuries, see [Koryakov 2022].

² More information about Proto-Mansi phonemes that are relevant for classifying Mansi dialects see in [Honti 1988].

Table 2. Main phonetic differences in 18th century Khanty dialects by differentiating features suggested by L. Honti

Proto-Khanty	eastern			southern			northern
	Vasjugan-Narym	Vasjugan	Surgut	Salym	Irtysk	Tobolsk	Beryozovo
* <i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>o/a</i>
* <i>ɔ</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>u/(o)</i> ³	<i>u/(o)</i>	<i>u</i>	<i>o</i>
* <i>ʌ</i> -	<i>o/j</i>		<i>l</i>	<i>l</i>	<i>l</i>	<i>l/tl</i>	<i>l</i>
* <i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>l</i>	<i>t/tl</i>	<i>l</i>
* <i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
* <i>č</i>	<i>č/t'</i>	<i>č</i>	<i>č</i>	<i>č</i>	<i>š/č</i>	<i>š/č</i>	<i>š</i>
* <i>ć</i>						<i>t</i>	<i>š</i>
* <i>k(V)</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>x</i>	<i>x</i>	<i>x/k</i>	<i>x</i>
* <i>k(V̇)</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>	<i>k</i>
* <i>w</i> -	<i>v</i>	<i>v</i>	<i>v</i>	<i>u</i>	<i>v</i>	<i>v/0(u)</i>	<i>v</i>

Irtysk and Salym dialects saw only three out of these innovations: **kV* > *x*, **a* > *o*, **ɔ* > *u*. The shift **č* > *š* also started in Irtysk. Beryozovo dialect underwent three innovative changes *kV* > *x*, **č* > *š*, **ć* > *š*, and **a* > *o* started to emerge. Vasjugan dialect of that time underwent only one innovation **ʌ* > *o/j*. Surgut dialect preserved the Proto-Khanty phonemes in the most archaic state.

Thus, it can be concluded that the western (Beryozovo, Irtysk, Salym) and eastern (Vasjugan, Surgut) dialects of the 18th century, which remained until the 19th century, were considerably closer to each other than to the Tobolsk dialect, which disappeared quite early and in the 18th century was undoubtedly a separate dialectal group. It was distinguished from the known Khanty dialects of that time by the following processes: Proto-Khanty **l* > *t/tl*, **ʌ* > *tl*, **ć* > *t*, **w* > *0|u*.

Overall, Mansi dialects in the 18th century did not have distinct isoglosses that would have divided them. Meanwhile, Tobol dialect of Khanty was significantly different from the other dialects. This correlates with the data of considerable morphological differences between Khanty dialects and almost none in Mansi.

As these results contradict M. A. Zhivlov's account of glottochronology (performed mainly on the materials of 19th century dictionaries) stating that the time of divergence of Khanty and Mansi dialects was only two centuries apart, we decided to analyze lexicostatistical distances in Swadesh lists of contemporary Khanty and Mansi dialects. Native speakers were surveyed using the questionnaire published in [Kassian et al. 2010]. As a result, we have compiled the Swadesh lists of Kazym, Nizyam and Vakh Khanty as well as Sosva and Yukonda Mansi.

III. Differences in the Swadesh basic vocabulary lists of Mansi dialects

Table 3 below contains Swadesh lists of the words chosen by native speakers, with etymological references. The survey on the hundred-word list of Swadesh was conducted using a questionnaire described in [Kassian et al. 2010]. The last native speaker of the Konda eastern dialect of the Mansi language was interviewed. Two Sosva northern dialect native speakers were also interviewed. All their answers are included in the table. Words with the same meaning in modern dictionaries were not considered, since the methodology of the work is aimed precisely at those words that a native speaker uses in the contexts collected in the article [Kassian et al. 2010]. In the cases when we elicited more than one variant of Khanty or Mansi lexemes, we noted them all. The words that are relevant for calculating lexicostatistical distances — that is, they are not well-known borrowings⁴, but have different roots in dialects — are in bold and their meanings are underlined.

Overall, from the elicitation of native speakers for Sosva and Yukonda Mansi we detected 89 shared words, out of which 4 lexemes are borrowings in one or both dialects. From the remaining 85 words 74 lexemes are etymologically connected and 11 have different roots. Thus, the lexicostatistical distance between Yukonda and Sosva dialects is 87%.

This percentage is quite high, more than between Selkup (85%) dialects according to [Koryakov 2018].

The relatively low number of differences in Mansi Swadesh lists (11 words) correlates with almost full coincidence of morphological markers and a lack of distinct graphic and phonetic innovations in the 18th century manuscripts.

³ The reflexes found in duplicate forms are in brackets.

⁴ According to S. A. Starostin's method, which was used by M. A. Zhivlov too, borrowings are not calculated while measuring the lexicostatistical distances, as they usually emerge not because of evolution of a language (the average speed of change is 5 words in a millenium), but as a consequence of intense language contacts, see further [Burlak, Starostin 2005].

Table 3. Swadesh lists with etymological references for Sosva and Yukonda dialects of Mansi

Concept	Proto-form	eastern Yukonda	northern Sosva
1. all, все			нуссын
ashes, зола	FU * <i>kuḍmV</i> [UEW: 194] ⁵	<i>kivert-</i> <i>χu:ləm</i>	<i>хүлюм</i>
bark, кора	A Komi borrowing [Munkácsi, Kálmán 1986: 571]	<i>χaχ</i>	<i>сүл</i>
belly, живот	FU * <i>kirkV</i> [UEW: 161] A Tungusic borrowing, cf. Proto-Tungus * <i>pugi-</i> / <i>*puki-</i> 'the inside' [TMS 2: 339]	<i>kaχr-</i>	пуки
big, большой	PU * <i>enä</i> [UEW: 74—75]	<i>jañi-</i>	<i>яныг</i>
bird, птица	PU * <i>tulka</i> [UEW: 535] + * <i>wajV</i> (* <i>wojV</i>) [UEW: 553] A Tungusic borrowing, cf. Proto-Tungus * <i>šVču-</i> 'little bird' [TMS 2: 401, 422] ?	<i>εauε</i>	товлыу йй
bite, кусать	PU * <i>pure</i> [UEW: 405] PU * <i>soske</i> [UEW: 448]	<i>porán</i>	<i>пуруңкве</i> <i>төвмуңкве</i>
black, черный	A Khanty or Komi borrowing [UEW: 758]	<i>εemel'</i>	<i>сэмыл</i>
blood, кровь	PU * <i>kälV</i> [UEW: 134]	<i>kel'p-, k'al'p</i>	<i>кэлп</i>
bone, кость	PU * <i>luwe</i> [UEW: 254]	<i>losum</i>	<i>лув</i>
breast, грудь	FU * <i>mälke</i> (* <i>mäl̥ye</i>) [UEW: 267]	<i>maul'-</i>	<i>мāгыл</i>
burn, жечь	FU * <i>kiče</i> (* <i>küče</i>) [UEW: 153]	<i>ka:si</i>	<i>хүнсуңкве</i> <i>сяритаңкве</i> <i>нāйн</i> <i>тыттуңкве</i>
claw, nail коготь, ноготь	PU * <i>kinče</i> (* <i>künče</i>) (~ ? * <i>kiče</i> (* <i>küče</i>)) [UEW: 157]	<i>k'ant's'</i>	<i>костер</i>
cloud, облако	FP * <i>tule</i> 'ветер' [UEW: 800]	<i>tol-</i>	<i>тул</i>
cold, холодный	FU * <i>pała</i> 'мерзнуть' [UEW: 352]	<i>pul-</i>	<i>полям</i>
come, приходиться	PUg. * <i>juktV</i> [UEW: 851]	<i>juo-</i>	<i>ёхтуңкве</i>
2. die, умирать	PU * <i>šur(e)-ma</i> [UEW: 489]	<i>el'εekrem</i>	<i>сорумн</i> <i>патуңкве</i> <i>āтимыг</i>
dog, собака	PUg. * <i>āmpV</i> (* <i>empV</i>) [UEW: 836]	<i>omr</i>	<i>āмп</i>
drink, пить	FU * <i>juye-</i> (* <i>juke-</i>) [UEW: 103]	<i>ajaχ-</i>	<i>аюңкве</i>
dry, сухой	PUg. * <i>sasV</i> [UEW: 844]	<i>tos-</i>	<i>тосам</i>
ear, ухо	FU * <i>peljä</i> [UEW: 370]	<i>pa:l'</i>	<i>паль</i>
earth, земля	PU * <i>maγe</i> [UEW: 263]	<i>ma:</i>	<i>мā</i>
eat, есть	FU * <i>sewe</i> (* <i>seye</i>) [UEW: 440]	<i>teχ</i>	<i>тэуңкве,</i> <i>тэпъялаңкве</i>
egg, яйцо	PU * <i>muna</i> [UEW: 285]	<i>mon</i>	<i>муни</i>
eye, глаз	PU * <i>šilmä</i> [UEW: 479]	<i>s'a:m-</i>	<i>сам</i>
fat, жир	FU * <i>woje</i> [UEW: 578]	<i>woj</i>	<i>вой</i>
feather, перо	FU * <i>puna</i> [UEW: 402]	<i>pon</i>	<i>пун</i>
3. fire, огонь	PUg. * <i>tüyV-tV</i> ~ * <i>tüwV-tV</i> [UEW: 895] POUg. * <i>nājä</i> [Honti 1982: 421]	<i>towt</i>	най
fish, рыба	PU * <i>kala</i> [UEW: 119]	<i>χul'</i>	<i>хул</i>
fly, летать	FU * <i>šilkV</i> (* <i>šülkV</i>) [UEW: 500]	<i>teul'i</i>	<i>тыламланкве</i>
foot, нога	PUg. * <i>lolkV</i> [UEW: 865]	<i>loaile</i>	<i>лагыл</i>

⁵ Here and further, when quoting forms from [UEW], we, like S. A. Starostin and A. V. Dybo, who created the [UEW] database available at <https://starling.rinet.ru/cgi-bin/response.cgi?root=config&morpho=0&basename=/data/uralic/uralet&first=1>, accept the following transcription changes that make it more convenient for the modern reader to perceive: з replaced by V, 8 by O, 8̄ by E.

Concept	Proto-form	eastern Yukonda	northern Sosva
full, полный	FU * <i>tāwδe</i> (* <i>tālkV</i>) [UEW: 518]	<i>tajle</i>	<i>таглэкв</i>
give, давать	PU * <i>miye</i> [UEW: 275]	<i>me-</i>	<i>минункве</i>
good, хороший	POUg. * <i>jomV</i> (* <i>jamV</i>) [UEW: 850]	<i>jomas</i>	<i>ёмас</i>
	A Turkic borrowing * <i>bañ</i> ‘holy’ [EDT: 385]?	<i>wan’χor</i>	
green, зеленый	POUg. * <i>ñErV</i> (* <i>ñOrV</i> , * <i>ñOrkV</i>) [UEW: 331]		<i>нярппум оспа</i>
hair, волосы	PU * <i>apte</i> [UEW: 14]	<i>a:t</i>	<i>ат</i>
hand, рука	FU * <i>kāte</i> [UEW: 140]	<i>kuete-</i>	<i>кат</i>
head, голова	PU * <i>pāñe</i> [UEW: 365]	<i>p’añk</i>	<i>пунк</i>
hear, слышать	FU * <i>kule</i> [UEW: 197]	<i>χ’ontl’-</i>	<i>хунтлункве</i>
heart, сердце	PU * <i>šidā</i> (- <i>mV</i>) (* <i>šüdā</i> (- <i>mV</i>)) [UEW: 477]	<i>səm</i>	<i>сьм</i>
horn, рог	PU * <i>añtV</i> (* <i>oñtV</i>) [UEW: 12]	<i>on’t-</i>	<i>аньт</i>
I, я	PU * <i>mE</i> [UEW: 294]	<i>om</i>	<i>ам</i>
kill, убивать	FU * <i>wedV</i> [UEW: 566]	<i>el-</i>	<i>алункве</i>
knee, колено	PU * <i>šānčV</i> [UEW: 471]	<i>s’ans</i>	<i>санспуңк</i>
know, знать	PU * <i>wOjV</i> ‘видеть’ [UEW: 588]	<i>ui-</i>	<i>вāнкве</i>
leaf, лист	FU * <i>lEpV</i> (* <i>lepV</i>) [UEW: 259]	<i>lopta</i>	<i>лүпта</i>
lie, лежать	FU * <i>kujV</i> [UEW: 197]	<i>χojen</i>	<i>хуюнкве</i>
liver, печень	PU * <i>maksa</i> [UEW: 264]	<i>ma:t, iʃ mait-</i>	<i>майт</i>
long, длинный	PU * <i>koñčV</i> ~ * <i>kočV</i> [UEW: 180]	<i>χoεə</i>	<i>хоса</i>
louse, вошь	FU * <i>tāje</i> [UEW: 515]	<i>taχət</i>	<i>такум</i>
man, мужчина	PU * <i>koj(e)-mV</i> [UEW: 168]	<i>χət</i>	<i>хум</i>
many, много	FU * <i>čukkV</i> (* <i>čokkV</i>) [UEW: 62]	<i>s’uow</i>	<i>сав</i>
meat, мясо	POUg. * <i>ñāyčl</i> [Honti 1982: 169]	<i>n’oul’</i>	<i>нёвьль</i>
moon, луна	PU * <i>jitV</i> (* <i>jütV</i>)- [UEW: 99]		<i>этнос</i>
mountain, гора	A Tinguistic borrowing? cf. Proto-Tungus *(<i>x</i>) <i>uKu-</i> ‘hill’ [TMS 2: 256] ⁶	<i>a:χ</i>	
			<i>нёр</i>
mouth, рот	PU * <i>šuwe</i> [UEW: 492]		<i>суп</i>
	A Komi borrowing [Rédei 1970: 167—168]	<i>tuwsən</i>	
name, имя	PU * <i>nime</i> (? * <i>lime</i>) (* <i>nime</i> (? * <i>lime</i>)/* <i>ñime</i>) [UEW: 305]	<i>n’a:mə-</i>	<i>нам</i>
neck, шея	FU * <i>šepä</i> [UEW: 473] (+ * <i>luwe</i>)	<i>sople</i>	<i>сыплув</i>
new, новый	POUg. * <i>ilap, il</i> [Honti 1982: 142] / ПУ * <i>elä-</i> ‘live’ [UEW: 73]		<i>йильпи</i>
4. night, ночь	PU * <i>jitV</i> (* <i>jütV</i>) [UEW: 99]		<i>эт</i>
	FU * <i>eje</i> (* <i>üje</i>) [UEW: 72]	<i>je</i>	
nose, нос	POUg. * <i>ñäl</i> [Honti 1982: 451]	<i>n’oul</i>	<i>нёл</i>
not, не	FU/PU * <i>e~ä~a</i> [UEW: 68-69]	<i>at</i>	<i>ат</i>
one, один	FU * <i>ikte</i> (* <i>ükte</i>) [UEW: 81]	<i>a:χ</i>	<i>аква</i>
person, человек	POUg. * <i>iləm</i> [Honti 1982: 189]	<i>χols</i>	<i>элумхолас</i>
		<i>uetan</i>	
rain, дождь		<i>raχ</i>	<i>ракв</i>
red, красный	FU * <i>wire</i> [UEW: 576]		<i>вбгыр</i>
	PU * <i>kälV</i> [UEW: 134]	<i>kel’p-</i>	<i>кэлп</i>
road, дорога	POUg. * <i>lāñk</i> (- <i>a</i>) [Honti 1982: 189]	<i>l’onχ</i>	<i>лѣңх</i>
root, корень	FU * <i>särV</i> [UEW: 437]	<i>t’or</i>	<i>тār</i>
round, круглый			<i>пувыр</i>
sand, песок			<i>сэй</i>
say, говорить	POUg. * <i>lāw-</i> [Honti 1982: 201]	<i>l’a-</i>	<i>лāвуункве</i>
see, видеть	A Komi borrowing <i>kažal-</i> ‘see’ [UEW: 640]		<i>касалаңкве</i>
	PU * <i>wOjV</i> [UEW: 588]	<i>u:-</i>	

⁶ Reflexes of this word have unmatching correspondences in vocalism in Mansi dialects, cf. Middle Ob *uχ* ‘mountain’ in field notes, other reflexes in [Kannisto et al. 2013: 21]. Such unusual vocalism tends to point to a borrowing. Besides, A. Kannisto does not make any etymological references on this word.

Concept	Proto-form	eastern Yukonda	northern Sosva
seed, семя	PU * <i>šilmä</i> [UEW: 479] ‘eye’		<i>сам</i>
sit, сидеть	PU * <i>amV-</i> [UEW: 8]	<i>wondlen</i>	<i>унлуңкве</i>
5. skin, кожа	FU * <i>šuka</i> [UEW: 488]		<i>сов</i>
	PU * <i>tulka</i> ‘feather, wing’ [UEW: 535]	<i>to:wəl’</i>	
sleep, спать	FU * <i>kujV</i> [UEW: 197]	<i>χojen</i>	<i>хуюңкве</i>
small, маленький	FU * <i>ičä</i> (* <i>üčä</i>) / a Komi borrowing / PUg. <i>wänčV</i> ~ <i>wäčV</i> ‘thin’ [UEW: 899]	<i>wie</i>	
			<i>мāнь</i>
smoke, дым	PUg. * <i>pičV</i> (* <i>pičV</i>) [UEW: 879]		<i>посым</i>
stand, стоять	FU * <i>saŋća</i> [UEW: 431]	<i>tuncən-</i>	
	A Komi borrowing ? [DEWOs: 759] ⁷		<i>лōлюңкве</i>
star, звезда		<i>sov</i>	<i>сов</i>
stone, камень	A Komi borrowing [Rédei 1970: 110]	<i>kerəmc</i>	
			<i>āxətas</i>
sun, солнце	PU * <i>koje</i> [UEW: 167]	<i>χotəl’</i>	<i>хōтал</i>
swim, плавать	PU * <i>uje</i> ~ * <i>oje</i> [UEW: 543]	<i>wujitəχ</i>	<i>уюңкве,</i> <i>уигтаңкве</i>
	FU * <i>pilkV</i> (* <i>pülkV</i>) [UEW: 380]		<i>пувлуңкве</i>
tail, хвост		<i>l’ewuət</i>	<i>лōг</i>
that, тот	PU * <i>tä/te/ti</i> [UEW: 513—514]	<i>tot</i>	<i>таи</i>
thin, тонкий			<i>вовта</i>
this, этот	PU * <i>tä/te/ti</i> [UEW: 513—514]	<i>tet</i>	<i>тыи</i>
thou, ты	POUg. * <i>näy/*nēy</i> [Honti 1982: 167]	<i>nan</i>	<i>нан</i>
tongue, язык	FU * <i>hālmä</i> [UEW: 313]	<i>n’elm’en</i>	<i>нēлм</i>
tooth, зуб	FU * <i>piŋe</i> [UEW: 382]	<i>tus’pank</i>	<i>пуңк</i>
tree, дерево	PU * <i>juwV</i> [UEW: 107]	<i>jiw</i>	<i>йив</i>
two, два	PU * <i>kakta</i> ~ * <i>käktä</i> [UEW: 118]	<i>kit’a</i>	<i>кит/китыг</i>
walk (go), идти	PU * <i>mene</i> [UEW: 272]	<i>te:nen</i>	<i>минункве</i>
	PU * <i>jomV-</i> [UEW: 100]	<i>juomen</i>	
warm, теплый	FU * <i>lońća</i> [UEW: 250]	<i>lanəən</i>	<i>лоньциң</i>
water, вода	PU * <i>wete</i> [UEW: 570]	<i>wit</i>	<i>вит</i>
we, мы	PU * <i>mE</i> [UEW: 29]	<i>man</i>	<i>ман</i>
what, что	PU * <i>mV</i> [UEW: 296]	<i>manəŋ</i>	<i>маныр</i>
white, белый			<i>войкан</i>
		<i>sairən</i>	
	FU * <i>jäŋe</i> ‘лед’ [UEW: 93]		<i>яңк</i>
who, кто	PU * <i>ku-</i> ~ * <i>ko</i> [UEW: 191]	<i>χənér</i>	<i>хотьют,</i> <i>хōңха</i>
woman, женщина	PU * <i>niŋä</i> (* <i>niŋä/niŋä</i>) [UEW: 305]	<i>nia:</i>	<i>нэ</i>
	FU * <i>ewkkV</i> [UEW: 76]		<i>эква</i>
yellow, желтый			<i>хāль лўнта</i> <i>холом оспа</i>

IV. Differences in the Swadesh basic vocabulary lists of Khanty dialects

See below the information about differences between Khanty dialects. The survey was also conducted using a questionnaire developed in [Kassian et al. 2010]. The last native speaker of Nizyam dialect, who lives in Khanty-Mansiysk and speaks the dialect fluently, was interviewed. Also, two native speakers of northern Kazym northern dialect of Khanty, who use their mother tongue in everyday life, were interviewed. All their answers are included into the table. The words that are relevant for calculating lexicostatistical distances between

⁷ A borrowing hypothesis from Komi *люллявны* ‘stagger’ is suggested, because this word is attested only in North Mansi, according to [Munkácsi, Kálmán 1986: 286], and L. Honti does not reconstruct it for Proto-Ob-Ugric,

Kazym (northern) and Vakh (eastern) dialects — that is, they are not well-known borrowings, but have different roots — are in bold and their meanings are underlined. Khanty lexemes that distinguish between Nizyam (transitional) and Kazym (northern) dialects are also underlined. These words show that differences between those western dialects is much less than between the western and eastern ones.

Table 4. Swadesh lists with etymological references for Vakh, Nizyam and Kazym dialects of Khanty

Word	Protoform	Vakh	Nizyam	Kazym
all, все	PU *ku- ~ *ko [UEW: 191]		<i>χudi jewa</i>	<i>χölljewa / χöll</i>
ashes, зола	FU *kuđmV [UEW: 194]		<i>χəjəm / χujəm</i>	<i>χəjəm</i>
bark, кора	FU *kere [UEW: 148—149]	<i>kär</i>	<i>kar</i>	<i>kar</i>
<u>1. belly, живот</u>	FU *kunV [UEW: 408]		<i>χun</i>	<i>χön</i>
		<i>póyji</i>		
<u>2. big, большой</u>	FU/ PU *enā [UEW: 74—75; DEWOs: 115]	<i>állä</i>		
	PU *anV (*onV) [UEW: 9]		<i>wəŋ</i>	<i>wəŋ</i>
bird, птица	FU *wajV (*wojV) [UEW: 553] + *tulka [UEW: 535]	<i>wájäy / wájəy</i>		<i>töχləŋ wəj</i>
bite, кусать	PU *pure [UEW: 405]	<i>porté</i>		<i>pörti</i>
	PU *soske [UEW: 448—449]			<i>təχəmti</i>
black, черный	PUg. *pEkKV-ttV [UEW: 882]	<i>pəyätə</i>	<i>piti</i>	<i>piti</i>
<u>3. blood, кровь</u>	FU *wire [UEW: 576]	<i>wär / wär</i>		
	PU *kälV [UEW: 134]		<i>kədi</i>	<i>kälj</i>
bone, кость	PU *luwe [UEW: 254]	<i>löy</i>	<i>θuw</i>	<i>lüw</i>
breast, грудь	FU *mälke (*mälye) [UEW: 267]	<i>möyäl</i>	<i>mewəd</i>	<i>mewəl</i>
burn tr., жечь	FU *äsV- [UEW: 27]		<i>ə:ijiti</i>	
	PUg. *tüyV-tV ~ *tüwV-tV [UEW: 895]			<i>tüta lapətti</i>
claw, ноготь	PU *kinče (*künče) [UEW: 157]	<i>könteə, künte</i>	<i>kunf</i>	<i>küşkar</i>
cloud, облако	FU *pilwe (*pilhe) [UEW: 381]	<i>pəliěŋ</i>	<i>pədəŋ</i>	<i>päləŋ</i>
<u>4. cold, холодный</u>	PU *acV ‘cold’ [Thesaurus 2010: 55]	<i>ätəy</i>		
	PUg. *pOtV ‘ice crust; to freeze’ [UEW: 882]			<i>pətam</i>
come, прийти	PUg. *juktV [UEW: 851]		<i>juχtjiti</i>	<i>jöχətti</i>
	PU *kola [UEW: 173]	<i>il qöl-iyən</i>	<i>χədti</i>	
	[DEWOs: 1458—1459] connected with Khanty <i>tewər</i> ‘litter, waste’	<i>téwərsäy.jə-yäl</i>		
<u>5. die, умирать</u>	FU *śur(e)-ma ‘death’ [UEW: 489]			<i>sörma jiti</i>
	[DEWOs: 259—260] connected with <i>čäyi-</i> / <i>šawi-</i> ‘save, hide’		<i>faweməti</i>	
dog, собака	PUg. *ämpV (*empV) [UEW: 836]	<i>ämp</i>	<i>amp</i>	<i>amp</i>
	FU *sewe (*seye) [UEW: 440]	<i>li-tä</i>		
<u>6. drink, пить</u>	FU *juye- (*juke-) [UEW: 103]		<i>jəneti / jəneti</i>	<i>janši</i>
dry, сухой	FU *sarV ‘сухой’		<i>səram</i>	<i>səram</i>
ear, ухо	FU *peljä [UEW: 370]	<i>pəl</i>	<i>pəd</i>	<i>päl</i>
earth, земля	PU *maye [UEW: 263]	<i>məy</i>	<i>məw</i>	<i>müw</i>
eat, есть	FU *sewe (*seye) [UEW: 440]	<i>litä</i>	<i>θewa / teti</i>	<i>letī</i>
egg, яйцо		<i>kärəŋ moq</i>		<i>kar pöšəχ</i>
eye, глаз	PU *šilmä [UEW: 479]	<i>sem</i>	<i>sem</i>	<i>sem</i>
fat, жир	FU *woje [UEW: 578]	<i>woj</i>	<i>wij</i>	<i>wöj</i>
feather, перо	FU *puna [UEW: 402]	<i>pun</i>		<i>pün</i>
fire, огонь	PUg. *tüyV-tV ~ *tüwV-tV [UEW: 895]	<i>tüyö</i>	<i>tüt</i>	<i>tüt</i>
	POUg. *näj [Honti 1982: 167]	<i>näj</i>	<i>naj</i>	
fish, рыба	PU *kala [UEW: 119]	<i>qu(l)</i>	<i>χud</i>	<i>χül</i>
	FU *šilkV (*šülkV) [UEW: 500]	<i>läyäl-tä</i>		
<u>7. fly, летать</u>	POUg. *jōŋk- ~ *jäŋkā [Honti 1982: 143]		<i>jəŋχtjiti</i>	<i>jänχti</i>

Word	Protoform	Vakh	Nizyam	Kazym
foot, нога	[DEWos: 664—667] ⁸	<i>kūr</i>	<i>kur</i>	<i>kūr</i>
full, полный	FU * <i>tāwde</i> (* <i>tālkV</i>) [UEW: 518]	<i>téleltä / télel</i>		<i>tel</i>
give, давать	PU * <i>miye</i> [UEW: 275]	<i>mi-</i>	<i>mäti</i>	<i>mätī</i>
good, хороший	PUg. * <i>jomV</i> (* <i>jamV</i>) [UEW: 850]	<i>jäm / jāmāṅ</i>	<i>jəm</i>	<i>jäm</i>
green, зеленый	[DEWos: 1637]			<i>wōstī</i>
hair, волосы	PU * <i>apte</i> [UEW: 14]	<i>āwtä / āwat</i>	<i>əpət</i>	<i>əpət</i>
8. hand, рука	FU * <i>käte</i> [UEW: 140]	<i>köt</i>		
	POUg. * <i>jīčz</i> [Honti 1982: 140]		<i>jəf</i>	<i>jəš</i>
head, голова	PU * <i>ukV</i> (* <i>okV</i>) [UEW: 542]	<i>oy / óy</i>	<i>uχ</i>	<i>ōχ</i>
hear, слушать	FU * <i>kule</i> [UEW: 197]	<i>kólme-</i>	<i>χədti</i>	<i>χəltī</i>
heart, сердце	PU * <i>šidä</i> (- <i>mV</i>) (* <i>šüdä</i> (- <i>mV</i>)) [UEW: 477]	<i>säm</i>	<i>səm</i>	<i>säm</i>
horn, рог	PU * <i>aṅtV</i> (* <i>oṅtV</i>) [UEW: 12]	<i>āṅət / āṅət</i>		<i>əṅət</i>
I, я	PU * <i>mE</i> [UEW: 294]	<i>mä</i>	<i>ma</i>	<i>ma</i>
kill, убивать	FU * <i>weδV</i> [UEW: 566]	<i>wel-</i>	<i>wedti / wejiti</i>	<i>welī</i>
кnee, колено	FU * <i>šānčV</i> [UEW: 471]	<i>teänte</i>	<i>ʃaf</i>	<i>šanš</i>
9. know, знать	PU * <i>wOjV</i> [UEW: 588]		<i>wədti / wəjti</i>	<i>wəṭī</i>
	[DEWos: 1448—1449] connected with Khanty <i>tōṅ</i> ‘straight, true’	<i>tōṅəmt-tü</i>		
leaf, лист	FU * <i>IEpV</i> (* <i>lepV</i>) [UEW: 259]	<i>ʃōwət / ʃiwət</i>	<i>līpət</i>	<i>līpət</i>
lie, лежать	FU * <i>oda-mV</i> [UEW: 335]	<i>älä-ta</i>		<i>ölti</i>
liver, печень	PU * <i>maksa</i> [UEW: 264]	<i>müyöl</i>	<i>muxəd</i>	<i>mōχəl</i>
long, длинный	FU * <i>kawka</i> [UEW: 132]	<i>qoχ</i>		<i>χūw</i>
louse, вошь	FU * <i>täje</i> [UEW: 515]	<i>tōytäm</i>		<i>tewtəm</i>
man, мужчина	PU * <i>ekä</i> [UEW: 72]	<i>iki / iki / ik</i>		<i>iki</i>
	PU * <i>koje</i> [UEW: 166]	<i>ku</i>	<i>χə</i>	<i>χə</i>
many, много	PU * <i>erV</i> [UEW: 75]	<i>āryi / ārki</i>	<i>ar / arʃək</i>	<i>ar</i>
meat, мясо	POUg. * <i>nāyäl</i> [Honti 1982: 169]	<i>n'ōyi</i>	<i>nyxi</i>	<i>nōxi</i>
moon, месяц, луна	PU * <i>ekä</i> [UEW: 72]	<i>iki / iki / ik</i>		
	A Komi borrowing [DEWos: 1430]		<i>tīdäe</i>	<i>tīlās</i>
10. mountain, гора	[DEWos: 330]	<i>jōχ</i>		
	[DEWos: 1278]			<i>rep</i>
11. mouth, рот	FU * <i>šule</i> [UEW: 903]	<i>lul</i>		
	PU * <i>aṅe</i> [UEW: 11]		<i>uṅid</i>	<i>ūṅəl</i>
name, имя	PU * <i>nime</i> (? * <i>lime</i>) [UEW: 305]	<i>nem</i>	<i>nem</i>	<i>nem</i>
neck, шея	FU * <i>šepä</i> [UEW: 473]		<i>sapəd</i>	<i>sapəl</i>
new, новый	PU * <i>elä</i> - ‘жить’ [UEW: 73]	<i>jälw / jäläw</i>	<i>jidup</i>	<i>jiləp</i>
12. night, ночь	[DEWos: 345]	<i>jōχön</i>		
	PU * <i>jitV</i> (* <i>jütV</i>) [UEW: 99]		<i>at</i>	<i>at</i>
nose, нос	POUg. * <i>näl</i> [Honti 1982: 451]	<i>nöl</i>		<i>nöl</i>
not, не	[Honti 1982: 198]	<i>an</i>	<i>an / ənt</i>	<i>än, änt</i>
one, один	PU * <i>e</i> [UEW: 67]	<i>əj</i>	<i>i / it</i>	<i>it / i</i>
person, человек	PU * <i>koje</i> [UEW: 166] ‘man’	<i>qu</i>	<i>χanti χə / χujat</i>	<i>χänneχə</i>
	A Siberian Tatar or Samoyed borrowing	<i>qäsí</i>		
	FU * <i>kunta</i> [UEW: 206]		<i>χanti</i>	
13. rain, дождь	[DEWos: 852]	<i>ʃōwət</i>		
	POUg. * <i>jirt</i> [Honti 1982: 144]		<i>jert</i>	<i>jert</i>
red, красный	FU * <i>wire</i> [UEW: 576]	<i>wärtä</i>	<i>wirti</i>	<i>würtī</i>
	[Honti 1982: 202]	<i>lök</i>		
14. road, дорога	FU * <i>junča</i> ~ * <i>juča</i> [UEW: 104]		<i>jəf</i>	<i>jəš</i>

⁸ Here and further, when a simple reference to the source is given, it shows that the word has no external etymology, but the reader can find forms from other dialects in the specified dictionary.

Word	Protoform	Vakh	Nizyam	Kazym
15. root, корень	FU * <i>särV</i> [UEW: 437]		<i>θer / teramət:i</i>	<i>λer</i>
	POUg. * <i>θōr</i> [Honti 1982: 139]	<i>lor</i>		
	[DEWOs: 330]	<i>joγ</i>		
16. round, круглый	[DEWOs: 394]	<i>kómľäk</i>	<i>jeŋta</i>	<i>jeŋta</i>
	[DEWOs: 1351]	<i>səŋq / səŋqí / səŋqí</i>		
17. sand, песок	FU * <i>kOčV</i> [UEW: 226]		<i>χif</i>	<i>χiš</i>
	FU * <i>kuđmV</i> [UEW: 194]		<i>χujəm</i> ‘песок, зола’	
	FU * <i>wäntV</i> [UEW: 564]			<i>wantti</i>
18. see, видеть	FU * <i>wOjV</i> [UEW: 588]	<i>ú-ta</i>		
			<i>fiwadəti</i>	<i>šiwələti</i>
19. say, говорить	[DEWOs: 415]		<i>jastijti / jastəti</i>	
	[DEWOs: 1436]	<i>tölöy-ta</i>		
	[DEWOs: 1248]		<i>putərti</i>	
	[DEWOs: 848]		<i>lupti</i>	<i>löpti</i>
seed, семя	PU * <i>šilmä</i> [UEW: 479]			<i>sem</i>
sit, сидеть	PU * <i>amV-</i> [UEW: 8]	<i>áməs-ta</i>	<i>əməsti</i>	<i>əməsti</i>
skin, кожа	FU * <i>šuka</i> [UEW: 488]	<i>söγ</i>	<i>suχ</i>	<i>el söχ</i>
20. sleep, спать	POUg. * <i>wōj-</i> ~ * <i>wājā</i> [Honti 1982: 192]	<i>wójä-ta</i>		
	FU * <i>oda-mV</i> [UEW: 335]		<i>udti / wudti</i>	<i>əlti</i>
21. small, маленький	PUg. * <i>äjV</i> [UEW: 835]		<i>aj</i>	<i>aj</i>
	[DEWOs: 43]	<i>üküm / úküm / úkümáli / úküm</i>		
22. smoke, дым	POUg. * <i>pörkjzj</i> [Honti 1982: 179]	<i>pörqí</i>		
	PUg. * <i>pičV</i> (* <i>pičV</i>) [UEW: 879]		<i>pəsəŋ</i>	<i>pəsəŋ</i>
stand, стоять	FU * <i>saŋča</i> [UEW: 431]	<i>lál'-va</i>		<i>λəl'ti</i>
	[DEWOs: 721]		<i>tujci / təcjci</i>	
star, звезда	PU * <i>kuńčV</i> ~ * <i>kučV</i> [UEW: 210—211]	<i>qos</i>	<i>χəs</i>	<i>χos</i>
stone, камень	FU * <i>kiwe</i> [UEW: 163]	<i>köγ</i>	<i>kew</i>	<i>kew</i>
	[DEWOs: 1351]	<i>sühk</i>		
23. sun, солнце	PU * <i>koje</i> [UEW: 167]		<i>χət</i>	<i>χətəl</i>
	POUg. * <i>nāj</i> [Honti 1982: 167]		<i>naj</i>	
			<i>χəwiji</i>	
24. swim, плавать	FU * <i>pilkV</i> (* <i>pülkV</i>) [UEW: 380]		<i>pewədti</i>	<i>pewəłti</i>
	PU * <i>uje</i> ~ * <i>oje</i> [UEW: 543]		<i>wəcti</i>	<i>wəł'si</i>
tail, хвост	[DEWOs: 727]	<i>lamt-</i>		
	A Komi borrowing [DEWOs: 246]	<i>läγ</i>		
that, тот	ПУ * <i>tä / te / ti</i> [UEW: 513—514]		<i>fəjt / fəjət</i>	<i>šəjət</i>
	ПУ * <i>tä / te / ti</i> [UEW: 513—514]	<i>tom / t'ut</i>	<i>tun</i>	<i>töm</i>
this, этот		<i>t'u / teu</i>		<i>täm</i>
			<i>ei / eit</i>	
thou, ты		<i>nuy</i>		
	POUg. * <i>näy / *něy</i> [Honti 1982: 167]		<i>nəŋ</i>	<i>näŋ</i>
tongue, язык	FU * <i>ńälmä</i> [UEW: 313]	<i>ńäləm</i>	<i>ńadəm</i>	<i>ńaləm</i>
tooth, зуб	Fu * <i>piŋe</i> [UEW: 382]	<i>püŋkä</i>	<i>peŋk</i>	<i>peŋk</i>
tree, дерево	PU * <i>juwV</i> [UEW: 107] ‘сосна’?	<i>juγ</i>	<i>juχ</i>	<i>jüχ</i>
two, два	PU * <i>kakta</i> ~ * <i>käktä</i> [UEW: 118]	<i>kät / kä</i>	<i>kət:em</i>	<i>kät</i>
	PU * <i>mene</i> [UEW: 272]			<i>mänti</i>
25. walk (go), идти	PU * <i>kulke</i> [UEW: 198]	<i>kówəłta</i>		
	PU * <i>čančV</i> ~ * <i>čačV</i> [UEW: 53]		<i>fəfijti / fəfti</i>	
26. warm (hot),	PUg. * <i>mälV</i> [UEW: 868]	<i>méləγ</i>		

Word	Protoform	Vakh	Nizyam	Kazym
теплый (горячий)	[DEWOs: 510]	<i>qónǒq</i>		
	FU * <i>lońca</i> [UEW: 250]		<i>лунсаη</i>	<i>лǒńsi</i>
	[DEWOs: 427]		<i>χǒfǎm</i>	<i>χǒšǎm</i>
water, вода	FU * <i>jǎne</i> [UEW: 93]	<i>jǎŋki / jink / jǎnk / jǎŋk</i>	<i>jɪŋk</i>	<i>jɪŋk</i>
we, мы	PU * <i>mE</i> [UEW: 29]	<i>maŋ</i>	<i>mɪŋ</i>	<i>min</i> (мы двое)
what, что	PU * <i>mV</i> [UEW: 296]	<i>mǔyǐ / mǔyǔ / mǔy / mǔyǔli</i>	<i>muj</i>	<i>mōj</i>
white, белый	[DEWOs: 990]	<i>nǎyi</i>		<i>nōwi</i>
	FU * <i>jǎne</i> [UEW: 93]			<i>jeŋk</i>
who, кто	PU * <i>ku-</i> ~ * <i>ko</i> [UEW: 191]	<i>qóji</i>	<i>χǒj</i>	<i>χǒj</i>
	PU * <i>niŋǎ</i> (* <i>niŋǎ</i> / * <i>niŋǎ</i>) [UEW: 305]	<i>ni</i>	<i>ne</i>	<i>ne</i>
woman, женщина	PU * <i>imV</i> [UEW: 83]			<i>imi</i>
			<i>ɔwʲek</i>	
yellow, желтый				<i>wǔślǎm</i>

Overall, from the elicitation of native speakers for Kazym and Vakh dialects of Khanty 94 shared words were detected, out of which 6 lexemes are borrowings in one or both dialects. From the remaining 88 words 62 lexemes are etymologically connected and 26 have different roots. Thus, the lexicostatistical distance between Kazym and Vakh dialects is 70%.

This percentage is unusually low not only for dialects of one language, but also for closely related languages. In particular, Swadesh lists of contemporary Slavic languages compiled by M. N. Saenko [Saenko 2015, 2017] demonstrate more than 70% of coincidence in basic vocabulary. M. N. Saenko, after S. A. Starostin, dates divergence of Proto-Slavic back to 130 AD. As [Dyachok 2001] shows, the percentage of coincidence in basic vocabulary between any Turkic languages except Chuvash is also more than 70%. The traditional dating of divergence of Common Turkic is the early first centuries AD.

Given that Kazym and Vakh Khanty share the same percentage of coincidence in basic vocabulary, on the grounds of glottochronology it could be suggested that they diverged in the beginning of the first millennium AD.

These data are in agreement with substantial differences in morphology between contemporary Khanty dialects and a number of innovations that are present in Khanty dictionaries as early as the 18th century.

Conclusion

The analysis of phonetic differences in Ob-Ugric languages correlates with the results of glottochronology calculations conducted on the materials of a survey of native speakers of contemporary dialects.

They show that Mansi dialects neither have substantial differences in basic vocabulary, nor did they differ much in morphology and in graphics-phonetics in the 18th century. Phonetic innovations that hindered mutual understanding between speakers of the eastern and northern dialects in the 20th century occurred not earlier than 250 years ago.

On the contrary, Kazym and Vakh Khanty have more differences than any Slavic and even Turkic (except Chuvash) languages between each other. Undoubtedly, they should be accounted for different languages, not dialects. The time of their divergence can be dated as early as the beginning of the first millennium AD.

Abbreviations

FP — Finno-Permic

FU — Proto-Finno-Ugric

POUg. — Proto-Ob-Ugric

PU — Proto-Uralic

PUg. — Proto-Ugric

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