Khanty dialects in unpublished materials by G.F.Miller[1]

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As far as we know, the Khanty materials collected by G.F. Miller have not been described in detail by linguists before, despite them being among the first dictionaries of Khanty dialects. The lexical differences between them are quite significant as shown in the article [Fedotova 2021]. 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. In this regard, it is interesting to see, to what extent did the Khanty dialects differ from each other in terms of their graphemics in the 18th century.

Online dictionaries of the Khanty language, originally compiled by G.F. Miller in the 18th century, are now readily accessible on Lingvodoc. These dictionaries feature lexical parallels between the historical dialects and modern variants, as well as providing etymological connections to other Khanty dialects through the LingvoDoc platform.

1) Narym district dialect (Vasyugan subdialect): http://lingvodoc.ispras.ru/dictionary/2639/4152/perspective/2639/4156/view;

2) Vasyugan dialect: http://lingvodoc.ispras.ru/dictionary/2059/5674/perspective/2059/5675/view;

3) Surgut district dialect (Lumpokolsk subdialect):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) Priirtysh dialect
http://lingvodoc.ispras.ru/dictionary/1674/4209/perspective/1674/4210/view;

6) Berezovsk dialect
http://lingvodoc.ispras.ru/dictionary/2639/4221/perspective/2639/4225/view;

7) Tobolsk district dialect: http://lingvodoc.ispras.ru/dictionary/2516/17279/perspective/2516/17283/view.

Upon examination of the first texts recorded by G.F. Miller in adjacent columns of the same list, significant lexical differences have been observed, particularly between the Surgut (Lumpokol) and Tobolsk dialects. In fact, 11 differences in words from the 100-word list have been identified, which are not borrowings, thus indicating substantial differences between Khanty dialects during that time.

While a comprehensive analysis of the graphic, phonetic, and lexical attributes of these dialects remains a task for the future, this article will focus on examining the archival materials recorded by G.F. Miller through the

lens of the dialect-differentiating features of the Khanty dialects proposed by L. Honti in [Honti 1988]. This approach draws on materials collected during the late 19th and early 20th centuries, as documented in [Steinitz 1966]. See Table 1 below.

Table 1. The correspondences of the vowels in Khanty dialects

according [Honti 1988]

PKhant	Eastern			Mixed	Sou-thern	Intermediate		Northern		
	Vak.	Vas.	Surg.	Sal.	Irt.	Niz.	Sher.	Kaz.	Ber.	Obdor.
*a	a	a	a/ă	o	o	ɔ	ɔ	ɔ	ɔ	a
*ɔ̄	ɔ̄	ɔ̄	e	ä, o	ä, o	u, a	u, a	ǫ, a	u, a	o, ä
*ʌ-	l	j, 0	ʌ	t	t	t	t	ʌ	l	l
*-ʌ-	l	l	ʌ	t	t	t	t	ʌ	l	l
*l'	l'	l'	ʌ'	t'	t'	t'	t'	ʌ'	l'	l'
*l	l	l	ʌ	t	t	t	t	ʌ	l	l
*ḷ	ḷ	ḷ	l	l	l	l	l	l	ḷ	l
*ŋ	ŋ	ŋ	ŋ	n	n	n	n	ŋ	ŋ	n
*č	č	č	č	š	č	š	š	š	š	s
*ć	t'	t'	t'	t'	t'	ś	ś	ś	ś	ś
*k(V)	k	k	k	ḳ	x	x	x	x	x	x
*k(V̈)	k	k	k	k	k	k	k	k	k	k

As illustrated in the table, the primary phonetic distinction among the western, northern, and southern vs. the eastern dialects, as identified by V. Steinitz, is the reflex variation of Proto-Khanty *k(V). The Salym dialect, which has been scarcely documented and is now extinct, occupies an intermediate position between the eastern and southern dialects. Its reflexes of Proto-Khanty *k(V) align with the eastern dialects, while its reflexes of the laterals *ʌ, *l, *l', *ḷ align with the southern dialects., see more details in [Timkin 2019].

The northern and southern dialects are distinguished by their divergent reflexes of the lateral phonemes Proto-Khanty *ʌ, *l, *l', *ḷ, as well as *ć, *č. Meanwhile, the Nizyam and Sherkal dialects occupy an intermediate position, belonging to the southern group in terms of the reflexes of the lateral phonemes, and to the northern group in terms of the reflexes of Proto-Khanty *ć, *č.

According to the analysis of archival materials from the 18th century and comparison with modern dialectal materials available on the LingvoDoc platform (lingvodoc.ispras.ru), eastern and northern dialects have changed insignificantly over almost three hundred years, while the southern Irtysh and mixed Salym dialects have undergone significant changes from the 18th century to the end of the 19th century. The analysis of these changes, as well as the use of archival materials by G.F. Miller on the Tobolsk dialect, which disappeared in the 19th century and was not previously described, allows for dating of some changes and a more accurate description of the nature of mixed and southern dialects, which some authors separate into a distinct group, while others classify as western dialects. Table 2, which illustrates the main graphic-phonetic differences between Khanty dialects in the 18th century, in addition to information on the reflexes of Proto-Khanty phonemes identified by L. Honti for dialectal differentiation, also includes Proto-Khanty *w-, which has a special reflex in the Tobolsk dialect, previously not included in the analysis.

It should be noted that these small dictionaries were made in non-standardised graphic systems, and variations can be seen in the recording of sounds that are not found in Russian or European languages, for example, in the Tobolsk dialect *ʌ > l/tl. At present, we do not know whether this variation reflects a phonetic reality or not.

Other sources on the Tobolsk dialect may help to resolve this issue. However, at present, the archive of G.F. Miller contains the only recorded text written in the extinct dialect.

Table 2

The main phonetic differences of the Khanty dialects in the 18th century according to the dialect-differentiating features proposed by L. Honti.

	Eastern			Southern			Northern
Proto-Khanty	Vas. nar.	Vas.	Surg.	Sal.	Irt.	Tobol.	Ber.
*a	a	a	a	o	o	o	o/a
*ɔ	o	o	o	u/(o)[1]	u/(o)	u	o
*ʌ-	0/j		l	l	l	l/tl	l
*l	l	l	l	l	l	t/tl	l
*ņ	n	n	n	n	n	n	n
*č	č/t'	č	č	č	š/č	š/č	š
*ć						t	š
*k(V)	k	k	k	x	x	x/k	x
*k(V̈)	k	k	k	k	k	k	k
*w-	v	v	v	u	v	v/0(_u)	v

Below we will provide examples for each of the examined phonemes with an analysis of which ones had a dialect-differentiating character in the 18th century. We exclude *ŋ and *k(V̈) from the analysis, because their reflexes coincide in all dialects.

Proto-Khanty *a
Proto-Khanty *ač 'ram' > surg. *ачь* 'ram', irt. *oʃch-moch* 'lamb', ber., tobol. *ошъ* 'ram';
Proto-Khanty *aŋət 'horn' > surg. *агатъ*, ber. *онгытъ*, tobol. *анкытъ* 'horn';
Proto-Khanty *ńal 'arrow' > vas. nar. *нялъ*, vas. *njal*, sal., irt. *njol* 'arrow';
Proto-Khanty *wat 'wind' > vas. nar. *ватъ*, ber. *вадъ*, tobol. *вотъ* 'wind';
Proto-Khanty *sart 'pike (fish)' > vas. nar. *сартъ*, vas. *ʃart*, irt. *ʃort* 'pike (fish)'.
According to the reflex of Porto-Khanty *a in the 18th century, eastern (Porto-Khanty *a is preserved) and southern (Porto-Khanty *a > o) dialects were clearly distinguished, while in the northern Berezovsk dialect this transition had not yet been completed, as in the word *вадъ* 'wind' Porto-Khanty *a is preserved. Thus, the analysis of G.F. Miller's archive dictionaries shows that the innovative development of Porto-Khanty *a > o united northern and southern dialects, in contrast to the eastern dialects. The transition began in the south and gradually spread to the north.

Proto-Khanty *ɔ
Proto-Khanty *kɔs 'star' > vas. nar., surg., ber. *косъ*, vas. *koʃ*, sal. *chûs*, tobol. *кусъ* 'star';
Proto-Khanty *kɔləm 'three' > vas. nar. *колымъ*, vas. *kólon*, surg. *колымъ*, sal. *húlem* 'three', *cholym-chol-jang* 'thirteen', irt. *chúlym* 'three' / *cholym-jang* 'thirteen', ber. *холымъ* 'three', tobol. *кутымъ* 'three';Proto-Khanty *kɔl- 'listen' > vas. nar., surg. *колынта*, ber. *холымта*, tobol. *хутемъ* 'hearing';
Proto-Khanty *kɔs 'twenty' > vas. nar. *кос(вохъ)*, ber. *хосъ* 'twenty';
Proto-Khanty *lɔnt 'goose' > vas. nar., surg., ber. *лонтъ*, vas. *lont*, sal., irt. *lunt*, tobol. *тунтъ*.
The reflexes of Porto-Khanty *ɔ allow us to distinguish southern dialects (Priirtysh, Salym, Tobolsk) in the 18th century, where innovative development of Porto-Khanty *ɔ > u took place. In eastern and northern dialects, *o* is preserved. The appearance of *u* as a reflex of Porto-Khanty *ɔ in intermediate and northern dialects in the 19th century is probably the result of further spread of innovation to northern dialects.

Proto-Khanty *ʌ-
Proto-Khanty *ʌăpət- 'to eat, food' > surg. *литатъ*, ber. *леупасъ*, tobol. *летотомта* 'food;
Proto-Khanty *ʌĕɣ 'they' > vas. nar. *ихъ*, surg. *лыхтель*, ber. *лы* 'they', tobol. *тлиˑ* 'they';
Proto-Khanty *ʌuj ~ *ʌɔj 'finger' > vas. nar. *iôй*, surg. *лой*, sal. *lui*, ber. *луй*;
Proto-Khanty *ʌöŋkər 'mouse' > vas. nar. *iômгуръ*, vas. *júnker*, surg. *лонгуръ*, sal. *lénker*, irt. *lenkes*, ber. *ленгыръ*, tobol. *ленкыръ* 'mouse';
Proto-Khanty *ʌăpət 'seven' > vas. nar. *iôгаркияветъ* 'seventeen', vas. *jaget*, sal., irt. *lábat*, ber., tobol. *лабытъ* 'seven'.

Proto-Khanty *l-
Proto-Khanty *lɔnt 'goose' > vas. nar. *лонтъ*, vas. *lont*, surg., ber. *лонтъ*, sal., irt. *lunt*, tobol. *тунтъ* 'goose';
Proto-Khanty *läŋki 'squirrel' > vas. *lanki*, sal. *ljanki*, irt. *lángi* 'squirrel';
Proto-Khanty *lŏɣ 'bone' > vas. nar., surg. *лухъ*, sal., irt. *lul*, ber. *луу*, tobol. *ту* 'bone';
Proto-Khanty *lät 'time' > surg. *лотъ*, tobol. *тлятъ* 'time'.
As can be seen, the reflexes of laterals coincide in all dialects except for Porto-Khanty *ʌ- > vas. *j-/0-*, *l- > Tobol. *t/tl*. These were two important innovations of that time. There is also one example of the transition of Porto-Khanty *ʌ- > Tobol. *tl-* with the standard reflex being Porto-Khanty *ʌ- > Tobol. *l-*, which is similar to all other Khanty dialects of that time except for Vasyugan.

Proto-Khanty *č
Proto-Khanty *čäṇč 'knee' > vas. nar. *чаньчь*, surg. *чанжъ*, tobol. *чанчь*;
Proto-Khanty *ač 'cattle' > surg. *ачь* 'ram', irt. *oʃch-moch* 'lamb', ber., tobol. *ошъ* 'ram';
Proto-Khanty *čŏ̈nč 'back' > vas. nar. *чунжъ*, vas. *tjüntʃch*, surg. *чунчанъ*, sal. *tʃchündʃcha*, irt. *tʃchüntʃch*, tobol. *чинчь* 'back';
Proto-Khanty *ki̭č- 'get sick' > surg. *кычиˑ*, tobol. *кычитытъ* 'pain';
Proto-Khanty *čačəm- 'pour' > vas. nar. *чачемъ*, ber. *шожимъ* 'I pour'.
As far as can be judged from the materials found, the innovation of Proto-Khanty *č > š affected the Northern Berezovsk dialect and only began in the 18th century in the southern dialects: the Irtysh and Tobolsk dialects.

Proto-Khanty *ć

Proto-Khanty *wįćək, *wăćək* 'dirt' > ber. *вошлегъ*, tobol. *вотягъ* 'dirt'.

Proto-Khanty *k(V)-

Proto-Khanty *kɔs* 'star' > vas. nar., surg. *косъ*, vas. *koſs*, sal. *chûs*, ber. *хосъ*, tobol. *Кусъ*;

Proto-Khanty *kɔləm* 'three' > vas. nar., surg. *колымъ*, vas. *kólon*, sal. *húlem* 'three', *cholym-chol-jang* 'thirteen', irt. *chúlym* 'three' / *cholym-jang* 'thirteen', ber. *холымъ* 'three', tobol. *кутымъ* 'three';

Proto-Khanty *kɔl-* 'hear' > vas. nar., surg. *колынта*, ber. *холымта*, tobol. *хутемъ* 'hearing';

Proto-Khanty *kɔs* 'twenty' > vas. nar. *кос(вохъ)*, ber. *хосъ* 'twenty'; Proto-Khanty *kul* > vas. nar., surg. *кулъ*, vas., sal. *kul*, tobol. *Хулъ*.

This perseverance of the isogloss of Proto-Khanty *k* in western dialects reliably distinguishes them from eastern dialects, in which Proto-Khanty *k > x* , in which reliably distinguishes them from eastern dial *x* is preserved. The exception is the Tobolsk dialect, in which, as can be seen in more detail in the dictionary at http://lingvodoc.ispras.ru/dictionary/ 2516/17279/perspective/2516/17283/view, in which the change Proto-Khanty *k > x* is approximately equal to the perseverance of *k

Proto-Khanty *w-

Proto-Khanty *wäsəɣ* 'duck' > vas. nar. *васегъ*, vas. *waſsech*, surg. *василъ*, sal. *u͡aſse*, ber. *ваза*, tobol. *васе* 'duck';

Proto-Khanty *wăksar* 'fox' > vas. *wokei*, sal. *uáchſar*, irt. *wóſchar* 'fox';

Proto-Khanty *wol-* 'to be' > surg. *волосъ*, ber. *восымъ*, tobol. *улымъ* 'was';

Proto-Khanty *wĕr* 'blood' > vas. nar. *вярты*, vas. *wirte*, surg. *выртъ*, sal. *wärte*, irt. *würt*e, ber. *вырты*, tobol. *вырте*.

There are two more words in which the *w-* that fell before *u* in Tobolsk is preserved in other dialects: surg. *воллы*, surg. (Narym) *вылым*, tobol. улымъ 'grain', ber. *вытатъ*, tobol. *утымъ* 'width'; vas. *вулма*, tobol. утлай 'life'. In the late 19th century, the loss of initial　　before rounded vowels occurred in other dialects of the Khanty language, such as Vakhovsk, Vasyugan, Tremyugansk, Yugansk, as well as in the Mansi languages: Tavdinsk, Kondinsk, Lozvinsk, and Sosvinsk dialects.

Therefore, the analysis carried out shows that in the 18th century, the greatest number of changes occurred in the Tobolsk dialect. The following innovations were typical for it: Proto-Khanty *a > o, *ɔ > u, *l > t/tl, *ć > t', *w > 0/_u*, alongside a number of processes that had started but had not yet been completed: *č > š, *ʌ > tl, *kV > x.*

For the Priirtysh and Salym dialects, only three of these innovations were typical: *kV > x, *a > o, *ɔ > u*. In the Irtysh dialect, the transition *č > š* had also began.

In the Berezovsk dialect, there were also three innovations: *kV > x, *č > š, *ć > š*, and the transition *a > o* also began.

According to the analysis conducted, only one innovation occurred in the Vasyugan dialect during that period, which was *ʌ > 0/j*.

Whereas in the Surgut dialect, the Proto-Khanty phonemes have been preserved in their most archaic form. Undoubtedly, these observations, that are based on a very limited volume of non-standardised records, cannot serve as a basis for changing the dialect classification. However, it can be said that from the point of view of these dialect-differentiating features identified by L. Honti, the western (Berezovsk, Priirtysh, Salym) and eastern (Vasyugan, Surgut) dialects of the 18th century, that have survived until the 19th century, were significantly closer to each other than the extinct Tobolsk dialect, which undoubtedly formed a separate group in the 18th century. It differed from all the known Khanty dialects of that period, and had those innovations: Proto-Khanty *l > t/tl, *ʌ > tl, *ć > t, *w > 0|_u*.

With the exception of the Tobolsk (southern) dialect, the 18th century dialects could be divided into western and eastern groups. These groups differed in terms the isogloss of Proto-Khanty *kV > x* and in the innovations that had begun in western dialects: *a > o, *č > š*.

The western dialects, which included the more northern (Berezovsk) and southern (Priirtysh, Salym) ones, differed from each other only in terms of the isogloss of Proto-Khanty *ɔ > u*: the corresponding change occurred

in southern dialects, but not in Berezovsk. The eastern dialects differed from each other in terms of one Proto-Khanty isogloss: *ʌ > 0/j* in the Vasyugan dialect.

It is interesting that the innovations that occurred in the Tobolsk dialect in the XVIII century: *l > t/tl, *ʌ > tl, *ć > t', *w > 0|_u*, spread to other dialects in the XIX century and formed the basis of the dialect classification proposed by L. Honti.

The process of *l > t* spread to the Priirtysh, Salym, Nizyamsk, and Sherkal dialects and is considered the main innovative feature of the southern Khanty dialects. The processes of *ć > t'* and *w > 0/_u* are found in several southern and eastern dialects and distinguish them from the northern ones.

It is interesting to note that the significant phonetic differences that have existed in the 19th century and exist currently between the northern, southern, and eastern dialects emerged relatively recently. Moreover, in the 18th century, these differences were only characteristic of the Tobolsk dialect, in which there is the only surviving text written in the southern dialect according to the classification of that period.

This example shows us that dialects can change their classification relatively quickly: over the course of a hundred years, in more southern western dialects (such as in the Priirtysh dialect), all the innovative processes that were characteristic of Tobolsk occurred, as well as a number of other processes such as *ɔ̄ > o, ä*, and *l- (< Proto-Khanty *ʌ-) > t-*, which prevent these dialects from being identified as one. A similar example of rapid changes that led to a change in classification in less than a hundred years was described in the article [Normanskaja 2020] for the speech of Ivankino village in Kolpashevsky district. The book of St. Makary "Conversations about the True God and the True Faith in the dialect of the Ob Ostyaks", 1900, recorded in the Ivankino village, reflected the southern dialect. 60 years later in the recordings of A. P. Dulzon in the same village, a central dialect features were present, while specific Ivankino features were preserved, which distinguished it from other central dialects of the region. This is yet another proof that by studying the first Cyrillic books, it becomes clear how quickly innovations can occur and how dialects can change their classification.

It is important to note that such rapid innovative processes are usually associated with language contacts. Just like in the case of the village of Ivankino, where there were intensive contacts with the central Selkup people from the villages of Parabel and Narym, the Khanty of the Priirtysh region undoubtedly had close contacts with the Tobolsk speakers. This raises the question of what language contacts could be associated with the Tobolsk Khanty isoglosses, some of which, on the one hand, are quite unusual for Uralic languages (e.g., *l > t*), and on the other hand, had quickly changed the appearance of southern Khanty dialects.

It is interesting that a similar process of *l > t* in consonant clusters is described for Kazakh dialects, see [Dybo and others. 2020: 1431], and for the eastern dialect of the Bashkir language, see [Normanskaja 2017: 47; Ekba, Normanskaja, Karimova 2019: 106-107]. As pointed out by A.V. Dybo, this rule (*l > t*) in the Kazakh language was probably phonetic, since it "applies to clusters within roots, particularly in the adaptation of borrowings: *Алда* 'Allah', *молда* 'mullah', *арстан* 'lion'", see [Dybo and others. 2020: 1431]. This transition is also characteristic of many other Eastern Turkic languages, see maps in [Normanskaja 2020].

The articles [Tychinskikh, Muratova 2019; Maslyuzhenko 2013] describe historically documented close contacts between Kazakh and Bashkir tribes with Siberian Tatars in the Tyumen region near the city of Tobolsk. It is likely that the Khanty people were also actively involved in these contacts, as there are historical records indicating this, as noted in [Golovnev 2020]this is due to the fact that in the 16th century, Kuchum-Khan made Tobolsk his base.

These data suggest that the specific phonetic features of the southern Khanty dialects may have arisen as a result of contacts with Turkic tribes - but not with Siberian Tatars, for whom, as far as we know, such phonetic transitions are not documented, but with Eastern Bashkirs and Kazakhs.

List of abbreviations

Vak. — Vakhovsk Dialect of the Khanty language
Vas. — Vasyugan Dialect of the Khanty language
Vas. Nar. — Vasyugan Narym Dialect of the Khanty language
Surg. — Surgut dialect of the Khanty language
Sal. — Salym Dialect of the Khanty language
Irt. — Irtysh Dialect of the Khanty language
Niz. — Nizyamsk dialect of the Khanty language

Sher. — Sherkalsk dialect of the Khanty language
Kaz. — Kazymsk dialect of the Khanty language
Ber. — Berezovsk dialect of the Khanty language
Obdor. — Obdorsk dialect of the Khanty language
Pri. — Priirtysh dialect of the Khanty language
Tobol. — Tobolsk dialect of the Khanty language

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