

Adverbial clauses in Selkup over time: A study of temporal and purpose clauses

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This study analyzes the use and evolution of adverbial clauses in Selkup, exemplifying this with temporal and purpose clauses. Selkup texts from different time periods (1870s-1980s) are examined to identify patterns and changes in the use of these clauses over time, considering dialectal variation. The study explores possible factors contributing to these developments such as the influence of Russian. The diachronic perspective indicates that asyndetic forms have a long-standing presence in the Selkup language regarding temporal clauses, while syndetic forms utilizing conjunctions emerged relatively late under the influence of Russian for temporal clauses. Purpose clauses are predominantly expressed by asyndetic means over the whole time span in this study. Nevertheless, both these sentence types are more stable than other sentence forms in Selkup, as the original variants have not been completely replaced by Russian syntax.

KEYWORDS: adverbial clauses, Selkup language, temporal clauses, purpose clauses, syndetic constructions, asyndetic constructions, dialectal differences, historical development.

1. Introduction

Selkup, a Uralic language, exhibits a multitude of dialects and structures. Most types of adverbial clauses are originally formed asyndetically.¹ The focus of this study is on temporal and purpose clauses in Selkup, as they make use of various strategies, such as the use of converbs, infinitives, and action nouns, as well as the use of conjunctions. These strategies vary dialectically, with some dialects preferring one strategy over the other. Our main hypothesis is that syndetic means might substitute the use of non-finite verbal forms in the dependent clause due to Russian influence. Through an analysis of Selkup texts from different time periods, this study aims to identify patterns and changes in the use of temporal and purpose adverbial clauses in the language and to explore possible factors contributing to these developments. By shedding light on the historical development of adverbial clauses in Selkup, this study hopes to provide insights into the diachronic evolution of these types of subordinate clauses. It aims to determine

whether they exhibit the supposed diachronically conservative behavior when compared with other kinds of clauses.

The paper is divided into several sections, each addressing different aspects of the study on adverbial clauses in the Selkup language. These sections include theoretical background (1.1), an overview of the Selkup language (1.2), a description of the corpora and methodology used in the study (1.3), the corpus analysis and results – temporal clauses in 2.1 and purpose clauses in 2.2 –, and a concluding summary of the study's main findings and implications (section 3).

1.1. Theoretical background

This paper examines specific types of adverbial clauses in Selkup, which are traditionally viewed as subordinating clauses (e.g. Lyons 1968, Givón 1990, Van Valin & LaPolla 1997, Hengeveld 1998, among others). Subordination refers to the grammatical relationship between two clauses, where one clause is dependent on the other. Although subordination and coordination are often treated as distinct categories in linguistics, the boundary between them can be ambiguous in some cases. There may be instances where a clause exhibits characteristics of both subordination and coordination or where it is difficult to classify a clause as either subordinated or coordinated. Additionally, certain languages may possess structures that do not easily fit into either category, making it challenging to define clear-cut boundaries between the two. As such, while the terms 'subordination' and 'coordination' are useful for describing syntactic structures, it is crucial to acknowledge that they are not always clearly defined or mutually exclusive.

As already said, we will focus here on Selkup adverbial clauses, specifically temporal and purpose clauses. An adverbial clause typically provides information about time, location, manner, purpose, reason or condition.² Adverbial clauses can appear at the beginning, middle, or end of a sentence, and they modify the verb or the sentence as a whole (Hetterle 2015: 22, Thompson *et al.* 2007: 237-238, among others). Temporal clauses express when or how long an action in the main clause takes place, and can indicate simultaneous, anterior, or posterior situations, while purpose clauses express "a motivating event which must be unrealized at the time of the main event" (Thompson *et al.* 2007: 250-251).

There are multiple ways to connect adverbial clauses to the main clause, and these methods can be categorized into syndetic and asyndetic constructions. The terms 'syndetic' and 'asyndetic' refer to how clauses are connected within a sentence. Syndetic constructions use con-

junctions such as ‘when’ and ‘while’ to connect clauses, while asyndetic constructions omit conjunctions and rely on other grammatical devices (Gast & Diessel 2012: 5).

We will analyze both syndetic and asyndetic constructions in Selkup, providing a comprehensive overview of how adverbial clauses, here illustrated by temporal and purpose clauses, are linked to the matrix clause in this language. In addition, our study will also examine dialectal differences in Selkup, as well as changes in the usage of these clauses over time.

1.2. Selkup

Selkup is a Uralic language spoken in northwest and west-central Siberia, specifically along the Ob and Yenisei rivers. It belongs to the Samoyedic branch of the Uralic language family, along with Nenets, Enets, Nganasan, Kamas, and Mator. Selkup comprises two subgroups, Northern Selkup and Southern Selkup, with the former located in north-western Siberia between the Yenisei and Taz Rivers, and the latter situated in west-central Siberia in the area of the Ob River. Unfortunately, Selkup is an endangered language, with a small percentage of Selkup people possessing language skills according to the latest census data. Selkup dialects are numerous and diverse, particularly in the southern settlement group. Researchers have different models for division; some recognize only Northern, Central and Southern Selkup (e.g. Glushkov *et al.* 2013), while others advocate for the recognition of Ket Selkup as an independent dialect group (e.g. Helimski 1998). This paper assumes a division into four dialect groups as shown in table 1, with some sources from speakers who use a mixture of Central and Southern dialects. Nonetheless, there remain several unanswered research questions in Selkup dialectology that this paper cannot address.

NORTHERN (N)	CENTRAL (C)	SOUTHERN (S)	KET (K)
Taz	Vakh	Upper Ob	Upper Ket
Upper Tolka	Vasyugan	Middle Ob	Middle Ket
Baikha	Tym	Chaya	Lower Ket
Yelogui	Narym	Chulym	

Table 1. Dialect groups and subdialects of Selkup.

Selkup does not have a standardized written language, and efforts to establish an orthography for both the Northern and Southern Selkup

dialects have been mainly limited to school and university contexts and have not been widely adopted. Due to the lack of a consistent writing system (which might have unified existing variation) and the fragmentation of the language into dialects, we see a great variation in the presentation of Selkup vocabulary and suffixes also in the examples present in this study.

Selkup is an agglutinative language with some fusional features, particularly in possessive forms, and nouns are inflected for number, possession, and case. The case system varies depending on the dialect and includes nominative, accusative, genitive, several spatial cases such as locative, lative, ablative, and prolative, as well as translative and comitative. Selkup follows a predominantly SOV word order and is a head-final language, typically for Samoyedic languages subjects can easily be dropped in Selkup and do not need to be expressed overtly when detectable via context.

Verbs in Selkup are divided into perfective and imperfective and are inflected based on tense, mood, person (1-3), and number (singular, dual, or plural). There are two types of conjugation: ‘subjective’ and ‘objective’ conjugation (cf. Helimski 1998). The distinction is originally discourse-pragmatic and ‘fossilized’ in today’s Selkup language (Klumpp & Budzisch 2023: 915): subjective conjugation is mostly used with intransitive verbs, objective conjugation with transitive verbs, but there are a number of exceptions, so that the final use of conjugation types has not been clarified to this day.

Selkup has four tenses: aorist (unmarked), two past tenses, and future tense. The aorist tense depends on the aspect value of the verb stem: verb stems with an inherent perfective lexical aspect without any tense marker refer to the immediate past, and verb stems with an inherent imperfective lexical aspect refer to the present. Additionally, Selkup has several moods including indicative (unmarked), imperative, auditive, conditional, and debitive. A connecting element called a co-affix is used to connect personal endings and some mood markers to the stem, but it is not commonly used in connection with a tense marker.

Selkup also features various non-finite forms, including the infinitive, five participle forms, two converb forms, and supine forms: Infinitives in Selkup exhibit variations across dialects, such as *qən-go* ‘to go’ in Northern Selkup and *qwan-gu* ‘to go’ in Central Selkup. Selkup possesses five attested participial forms; they are here cited in the Northern Selkup form: present (*-ntil’* and allomorphs), past (*-mpil’* and allomorphs), caritive (*-kun’čitil’*), necessitative (*-psotil’* and allomorphs, in Southern mostly in the variant *-sodi*), and destinative (*-psa*). However, the caritive and destinative participles are predominantly

used in Northern dialects, albeit with rare occurrences. The necessitative participle is found in both Northern and Southern Selkup, while Central and Ket dialects do not exhibit it. Participles in Selkup are adjectival representations of verbs (Helimski 1998). The supine form in Selkup is the illative-translative possessive form of the infinitive, varying according to person. The third-person singular ending is *-qinto:(qo)*. Supine forms are primarily utilized in the Northern Selkup dialects, with only a few instances found in the Central, Southern, and Ket Selkup data.

Action nouns in Selkup are nominalized forms that represent actions or processes. Two suffixes, *-ptä* and *-ku*, are used to form action nouns. However, the latter suffix has become non-productive and appears only in lexicalized forms in the Northern and Ket dialects. The Central dialects do not present evidence of action nouns.

Selkup employs two types of converb forms: simple and complex (see e.g. Voevodina 1976; Kuznecova *et al.* 1980; Helimski 1983, 1998; Cheremisina & Martynova 1991; Kuznecova 1995; Valijärvi 2008). Their use in adverbial clauses is one of the main functions (cf. Haspelmath 1995). The simple form (CVB1), with the ending *-lä* (and its allomorphs), is present in all Selkup dialects, while the complex converb (CVB2) takes various forms: Central, Southern, and Ket Selkup use the form *-leble/-lewle* as in (1a). In Northern Selkup, the complex form is expressed through the simple converb form *-lä* and the lexicalized postposition *pulä* derived from the converbal form of the verb *pu-* ‘to cross’ as is shown in example (1b).

- (1) a. *Po-j p'e-nde-ze-l'e ...*
 tree-DU look.for-IPFV-DRV-CVB1
 ‘As she looked for wood ...’
 Ket: Upper Ket, KKN_1971_WhiteHeadedWomana_flk.006
- b. *Lo:si ira mo:t-ti šer-l'ä pu-l'a ...*
 devil old.man tent-ILL go.into-CVB2 after
 ‘[...] after the old devil had gone into the house ...’
 Northern: Upper Taz, KAI_1965_BoyAndOldDevil1_flk.228

Converb constructions in Selkup lack inflectional morphemes, indicating no subject agreement, tense, or mood. Generally, Selkup converb constructions refer to the same subject, with only a few exceptions. Some scholars (see e.g. Cheremisina & Martynova 1991, Valijärvi 2008) have posited that simple converbs denote temporal simultaneity, while complex converbs indicate temporal non-simultaneity. However, this assumption does not hold true, as observed in Selkup usage.

For more details on Selkup in general see Kazakevič (2022) and Klumpp & Budzisch (2023).

2. Data and methods

This study utilizes two corpora, namely the *Selkup Language Corpus* (SLC) and the *INEL Selkup Corpus*. The former consists of 144 texts, 9,756 sentences, and 55,839 tokens (Budzisch *et al.* 2019). The latter, on the other hand, was published in 2021 and contains 264 texts, 7,887 sentences, and 42,466 tokens (Brykina *et al.* 2021). Table 2 provides a summary of the combined data size of the two corpora.

DIALECT GROUP	SPEAKERS	UTTERANCES	TOKENS
Northern Selkup	83	5,030	29,368
Central Selkup	25	3,975	24,690
Southern Selkup	16	5,003	25,456
Ket Selkup	29	2,733	15,039
Mixed ³ dialects	1	268	2,468
Total	154	17,009	97,021

Table 2. Corpus data.

The *SLC* and *INEL* corpora were used in this study to investigate adverbial clauses in Selkup. The *SLC* corpus comprises published texts, most of which were not previously available in digital format. The *INEL* corpus contains field research data by the Russian researcher Kuzmina from the 1960s, which was mostly unpublished. While the texts in both corpora are mainly spoken language, they were not necessarily produced spontaneously. Variance in the textual content is attributed to the dialectal variation of Selkup. As was mentioned before, due to the absence of a standardized writing system in Selkup, these variations were not unified and, hence, are present in the data, although this variability is not a primary focus of the syntactic investigation.

Examples cited in this study follow a standardized pattern: ‘speaker abbreviation’_‘year of recording’_‘short title’_‘genre’_‘sentence number’. The speaker abbreviation consists of the first letters of the speaker’s surname, first name, and father’s name. The genres include folklore (flk), everyday stories (nar), translations (trans/transl), conversation (conv), and songs (song), while the dialect group (Southern, Central,

Northern, or Ket Selkup) and dialect are also indicated. The corpus data published by Budzisch *et al.* (2019) and Brykina *et al.* (2021) contain further metadata on the speakers. Transcriptions of the texts were taken from the respective corpus and any minor errors were corrected without further mention, with glosses unified to present a coherent picture. More detailed information on the corpus transcriptions can be found in Behnke & Budzisch (2021) for the *SLC* corpus and Orlova *et al.* (2020) for the *INEL* corpus.

The present study employed the query and analysis tool EXAKT⁴ (Schmidt & Wörner: 2005; Wörner: 2010) for the purposes of linguistic analysis. In order to conduct the search, syntactic annotations were utilized (also described in the corpus description), including the identification of various adverbial clause types, as well as clause linkage annotations, which encompassed different syndetic and asyndetic linkage patterns. The search results were further cross-referenced with metadata contained in CoMa,⁵ such as the dialect group, dialect, subdialect, and date of recording, in order to contextualize the findings.

3. Adverbial clauses in Selkup

In Selkup, adverbial clauses can be expressed both syndetically and asyndetically, with the latter using nonfinite verb forms. Asyndetic constructions can be found in various types of adverbial clauses such as temporal clauses, purpose clauses, conditional clauses, clauses of manner, causal clauses, and consecutive clauses. This paper focuses on a case study of temporal and purpose clauses of Selkup and investigates any possible changes thereof in time, for an overview of adverbial clauses in general see Behnke (2021) and Behnke & Budzisch (2023).

If one takes a look at languages in the area, one also finds asyndetic constructions in temporal and purpose clauses. For example, converbs are not only found in Selkup subordinate clauses as we will show in the following sections but are also used in Kamas, Evenki, Khanty, and Chulym Turkic to form temporal clauses. With the exception of Khanty, converbs are also used in purpose clauses in these languages. Northern Samoyedic languages such as Enets and Nenets use nominalization and postpositions in both temporal and purpose constructions. Juxtaposition is a rarer phenomenon in temporal and purpose clauses; except for Selkup it is only used by Khanty (only temporal clauses), Mansi and Evenki (only purpose clauses) (for general descriptions of subordinate structures in the area see among others, both Behnke & Wagner-Nagy 2023 and Anderson 2004; for more detailed examinations in individual

languages cf. Arkhipov and Wagner-Nagy 2023, Behnke & Budzisch 2023, Bíró 2023, Däbritz 2023, Däbritz & Karakoç 2023, Filchenko 2023, Mus 2023, Nefedov 2023, Shluinsky & Wagner-Nagy 2023).

For Selkup, it can be stated already here that the strategies to form temporal and purpose clauses include the following, and they vary dialectically: asyndetic temporal clauses can be expressed by juxtaposition, converbs and action nouns. Converbs are used in all dialect groups. Action nouns are attested in Northern, Southern and Ket dialects. In the latter two, they only appear in simultaneous temporal clauses. There is no evidence for the use of action nouns in Central dialects. Syndetic constructions appear in all dialects, but are, however, not common in purpose clauses. Table 3 illustrates the distribution of non-finite verb forms and subordinating conjunctions in the data. Please note that brackets indicate only limited evidence in the texts. In the following, we will describe these strategies in more detail.

	TEMPORAL				PURPOSE			
	Northern	Central	Southern	Ket	Northern	Central	Southern	Ket
CVB	x	(x)	x	x	x	–	x	x
INF	–	–	–	–	x	x	x	x
SUP	–	–	–	–	x	–	–	(x)
ACTN	x	–	x	x	–	–	–	–
PTCP	–	–	–	–	x	–	(x)	(x)
CONJ	x	x	x	x	(x)	(x)	(x)	(x)

Table 3. Distribution of non-finite verb forms and subordinating conjunctions in temporal and purpose clauses.

3.1. Temporal clauses

Temporal clauses serve to convey a temporal relationship between the subordinate and main clauses, such as anteriority, simultaneity, and posteriority. There is a lack of evidence for posterior temporal clauses, either syndetically or asyndetically, hence in our analysis, we will give little indication of the systematic use of these types of sentences.

First, we will describe the individual strategies available for forming temporal clauses in Selkup, and then we will examine whether any changes over time can be observed.

Concerning CONVERBS, dialectal differences in usage can be observed. In Northern, Southern and Ket dialects, converbs are the predominant form for marking temporal clauses, with frequencies ranging from approximately 75% in the Southern dialect to around 77% in the Ket dialect and reaching 80% in the Northern dialect. In contrast, the Central dialects exhibit a lower reliance on converbs, employing them in less than half of the constructions, accounting for approximately 43% of the cases.

In terms of the manner of expressing asyndetic temporal clauses, two different strategies can be observed: Southern and particularly Ket dialects use simple converbs (CVB1) combined with non-past tense in the matrix clauses for simultaneous temporal clauses (2a), and complex converbs (CVB2) that are paired with a verb in past tense in the matrix clauses for anterior temporal clauses (2b). Note that analogous to other Samoyedic languages, the temporal meaning of the aorist depends on the lexical aspect of the verb stem: imperfective verbs refer to a present meaning, while perfective verbs express the immediate past.

- (2) a. [Po-j p'e-nde-ze-l'e]_{TEMP} maqa-l'ži-ŋ.
 tree-DU look.for-IPFV-DRV-CVB1 get.lost-INT.PF-3SG.S
 'As she looked for wood, she gets lost.'
 Ket: Upper Ket, KN_1971_WhiteHeadedWoman_flk.006
- b. [Tutto-m qwet-lewl'e]_{TEMP} tii-n top-ti tat-sa-dat.
 crucian-ACC catch-CVB2 fire-GEN border-ILL bring-PST-3PL
 'After having caught the crucians, they brought them to the fire.'
 Ket: Upper Ket, KKN_1971_FiveCarpBrothers_flk.018

It cannot be conclusively ruled out that these structures were also present in Northern and Central Selkup. The limited number of examples available for the Central dialects hinders a comprehensive analysis. In the Northern dialects, another strategy is typically employed, using simple converbs to mark simultaneous temporal clauses and complex converbs to mark anterior temporal clauses. An additional clear distinction of the tense in the matrix clause as in Southern and Ket dialects cannot be supported with the existing examples.

Temporal simultaneity is expressed by using the simple converb as in example (3a) and (3b). While the converb is identical in both examples, the finite verb forms in the matrix clause differ: in example (3a), the finite verb appears in the unmarked present, while in example (3b), it is in the past tense.

To express temporal anteriority, Northern dialects use the complex converb consisting of the simple converb *-lä* and the postposition *pulä*

‘after’, as illustrated in example (4) (for more detailed information, see also section 1.2 above).

As mentioned above, in contrast to the Central, Southern, and Ket dialects, the complex converb in Northern examples is formed by combining a simple converb with the postposition *pulä* ‘after’ (as illustrated in example (4)). Regarding tense, there is a significant number of examples that exhibit a combination of various converbal forms with different tenses. Table 4 illustrates this pattern.

- (3) a. [Qäl-a-mpi-lä]_{TEMP} muntik innä am-pa-ti
 go-EP-DUR-CVB1 all up eat-PST.REP-3SG.O
 ija-i-n-ti mäch-j mi-p
 child-PL.POSS-GEN-3SG.O meat-ADJZ something-ACC
 ‘While walking he ate pieces of meat of his children.’
 Northern: Upper Taz, MIV_1977_Icha_flk.026
- b. [Il’ča ima-m-ti qo-lä]_{TEMP} čura
 grandfather woman-ACC-OBL.3SG sight-CVB1 cry.3SG.s
 ‘As he sees his wife, the old man cries.’
 Northern: Middle Taz, NN_OldManAndOldWoman_flk.022
- (4) [Nami-p am-lä pulä]_{TEMP} kuččä sä qati-li-min?
 this-ACC eat-CVB1 after where let where.to.go-INCH-1PL
 ‘Where do we go, when we have eaten it?’
 Northern: Middle Taz, ALA_1977_ThreeBrothers_flk.064

	TEMPORAL SIMULTANEITY		TEMPORAL ANTERIORITY	
	Constituent clause	Matrix clause	Constituent clause	Matrix clause
Northern dialects	CVB1	V _{fin.non-past/past}	CVB1 + <i>pulä</i>	V _{fin.non-past/past}
Southern and Ket dialects	CVB1	V _{fin.non-past}	CVB2	V _{fin.past}
Central dialects	?	?	?	?

Table 4. Two different strategies to express asyndetic temporal clauses in Selkup.

ACTION NOUNS are occurring in Northern dialects, accounting for approximately 11% of occurrences in both simultaneous and anterior temporal clauses, as exemplified in example (5). There is also limited evidence of their usage in Southern dialects (less than 1%) and Ket dialects (~6%), but these instances are restricted to simultaneous temporal clauses, as seen in example (6). Note, that the genitive case marks the noun *qum* ‘person’ (5) and *t’eli* ‘sun’ (6) as attributes of the action nouns

qəntäqit (5) and *pasaqoptoyit* (6). Action nouns are not employed in Central dialects.

- (5) *(Da i ta) [qum-i-t-i-t qən-tär-qit]_{TEMP}, me: onit*
 and that person-EP-PL-EP-GEN go.away-ACTN-LOC 1PL oneself.1PL
qalɔ-mit.
 stay-1PL
 ‘When the men went away (lit. After the departure of the men), we stayed.’
 Northern: Taz, AZF_196X_Lifestory_nar.011
- (6) *[T’eli-n-t pasaqo-pto-yit]_{TEMP} n’un’e-mbi i qande-mbi*
 sun-GEN-3SG go.down-ACTN-LOC get.tired-PTCP.PST and freeze-PTCP.PST
Iwaška-n tö-mpa qə-t par-o-nt ara-ga.
 Ivashka-DAT come-PST.REP.3SG.S hill-GEN top-EP-ILL old.man-DIM
 ‘During sunset (lit. the decline of the sun), an old man came to the tired and frozen Ivashka on the hill.’
 Southern: Middle Ob, SUF_1967_HotStone_transl.056

To conclude, in Selkup dialects, the formation of temporal clauses through asyndetic means has two forms: converbs and action nouns. In particular, converbs vary across regions. The Northern, Southern, and Ket dialects predominantly use converbs, ranging from 75% to 80%, while the Central dialects exhibit lower reliance at approximately 43%. Action nouns are present in Northern dialects (around 11% occurrence) but are rare in Southern and Ket dialects and absent in Central dialects. If not formed asyndetically, temporal clauses are formed syndetically in Selkup, as we will discuss in the following.

Syndetic constructions in temporal clauses can be formed using SUBORDINATING CONJUNCTIONS, which include Selkup interrogative pronouns and borrowed conjunctions from Russian. The corpus analysis reveals only a few direct loanwords from Russian, such as *poka/pakka* (< Russ. *poka*) ‘while’, or *kak* (< Russ. *kak*) lit. ‘how’, but rather used as ‘when’ or ‘after’ following the usage of colloquial Russian. Instead, Selkup interrogative pronouns are utilized as subordinating conjunctions, for instance, Northern Selkup *kuča(t)* and Central, Southern and Ket Selkup *kuža(t)* ‘when’, and Northern Selkup *kuttar* and Central, Southern and Ket Selkup *qundar* ‘how’.

The distribution of subordinating conjunctions across dialects presents a mixed pattern: Selkup conjunctions are attested in Northern, Central, and Southern dialects, but not in Ket dialects. Among these, the highest frequency of Selkup conjunctions is found in Central dialects (~40%), followed by Southern (~22%) and Northern (~7%) dialects; following the general pattern of Russian influence onto the dialect groups.⁶ On the other hand, borrowed subordinating conjunctions from

Russian are present in Central, Southern, and Ket dialects, while they are absent in Northern dialects. The majority of borrowed subordinating conjunctions are found in Central (~12%) and Ket (~13%) dialects, with Southern dialects (~2%) exhibiting fewer instances.

In syndetic temporal clauses, the subordinating conjunction consistently introduces the constituent clause. Usually, the matrix clause follows the constituent clause as in the Southern example (7). The constituent clause precedes the matrix clause and is introduced by the conjunction *qayə* ‘when’ (< Russ. *kak* ‘how’). However, the opposite order may also be observed, as seen in the Central dialect example (8). It is worth noting that the subordinating conjunction *kuz’akin* represents a dialectal variant of the Selkup subordinating conjunction non-Northern variant *kuža* ‘when’.

- (7) [Qayə meŋ ä-sa-n sombl’e pä-wwi]_{TEMP}, esse-m
 when 1SG.ALL be-PST-3SG.S five year-1SG father-1SG
näta-ss.
 get.married-PST.3SG
 ‘When I was five years old, my father got married.’
 Ket: Upper Ket, MuLP_1964_Lifestory_nar.005

- (8) It’a üčega kali-mba pel-galik, [kuz’akin amba-di
 Itja child stay-PST.REP.3SG.S friend-CAR when mother-3SG
*ku-mba.*_{TEMP}
 die-PST.REP.3SG.S
 ‘Little Itja stayed alone, when his mother died.’
 Central: Vasyugan, ChDN_1983_ItjaStayedAlone_flk.001

Detecting JUXTAPOSITION in temporal clauses is not a straightforward task, as alternative interpretations are often plausible. However, there are instances where a temporal reading is highly likely, such as in the Northern and Southern dialect examples (9) to (11). Analyses indicate a relatively strong presence of juxtaposition in Central dialects (approximately 5%) and Ket dialects (around 4%), while occurrences in Northern and Southern dialects are infrequent, with a rate of less than 2%.

- (9) Awə-t ku-mba kuša-j po-d [Id’a
 mother-3SG die-PST.REP.3SG.S how.many-ADJZ year-ILL Itja
*te:li-mba.*_{TEMP}
 give.birth-PST.REP.3SG.S
 ‘His mother died the same year she gave birth to Itja.’
 Southern: Middle Ob, SMS_1980_ItjaForest_flk.003

- (10) [Täp na tü-nža]_{TEMP} tat t’ara-k qozir-č’-laj
 3SG this come-FUT.3SG.S 2SG say-IMP.2SG.S card-TR-IMP.1DU
 ‘When he will come, you tell him: Let us play cards.’
 Southern: Upper Ob, PVD_1961_FarmAssault_flk.046

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- (11) *Nini na qup iiru-kku-mpa [ompa č'u-psa*
 then this person get.lost-HAB-PST.REP.3SG.S soon melt-PTCP.NEC
*monti-qit ε-ppa*_{TEMP}
 outside-LOC be-PST.NAR.3SG.S
 'Then this man got lost, [when the snow] outside was about to start melting.'
 Northern: Middle Taz, NEP_1965_NenetsAndWhiteBear1_flk.014

To investigate potential changes in the usage of asyndetic and syndetic means over time, several subcorpora were analyzed. Both Selkup and Russian conjunctions are observed across various genres, including folklore, narratives, and translations. Among these genres, narratives exhibit the lowest proportion of subordinating conjunctions (approximately 11%), followed by folklore texts (around 14%). The highest occurrence of subordinating conjunctions is found in translations from Russian into Selkup (approximately 39%), which can be well explained by direct influence. Notably, songs do not provide any evidence of subordinating conjunctions.

In a diachronic examination of the various ways to express temporal clauses, it becomes evident that the initial thesis of the text – that converbs are replaced by conjugations – is not entirely accurate. Converbs persist throughout the entire period covered by the examined data. However, it is notable that in the early years, they were the sole mean, and then in the 1960s, when contact with Russian became more pronounced, additional marking strategies also came into play. From this point onward, conjugations are also employed, and action nouns begin to play a role during this period. It is worth noting that action nouns are primarily employed in Northern dialects.

	1870s	1940s	1950s	1960s	1970s	1980s
CVB	100%	100%	100%	78,17%	61,87%	38,10%
ACTN	–	–	–	8,8%	12,23%	–
CONJ	–	–	–	10,32%	22,3%	57,14%

Table 5. Distribution of asyndetic and syndetic means in temporal clauses per decade (all dialects).

In conclusion, temporal clauses in Selkup serve to express relationships such as anteriority, simultaneity, and posteriority between subordinate and main clauses. However, there is a notable lack of evidence for posterior temporal clauses in the data. The analysis focuses on asyndetic and syndetic constructions, highlighting the use of converbs, action nouns, and subordinating conjunctions across dialects. Converbs

are prevalent, with variations in usage across regions. Action nouns are present in Northern dialects but scarce in Southern and Ket dialects and absent in Central dialects. Syndetic constructions involve subordinating conjunctions, showcasing dialectal and Russian influences. Diachronically, converbs persist throughout the examined period, challenging the initial thesis of their replacement by conjugations. The analysis also reveals the emergence of additional marking strategies in the 1960s, coinciding with increased Russian contact. Overall, the formation of temporal clauses in Selkup displays dialectal variations and shifts over time.

3.2. Purpose clauses

Purpose clauses serve to depict a situation that represents the objective or purpose of the action described in the matrix clause. The prevalent construction for expressing purpose clauses in Selkup is asyndetic, employing the infinitive. Additionally, converbs and the supine form are utilized. The necessitative participle is used in purpose clauses in some cases. Evidence of its usage can be found in Northern, Southern, and mixed dialects. Although syndetic purpose clauses do exist, they occur only infrequently, comprising a small proportion of the overall data (~2%). Besides same subject constructions as shown in (13) and (14) below, there are also different subject purpose clauses in all dialects illustrated here in (12).

- (12) *a ondə* *sim-də* *qali-m-də* *po-n* *mo-l'a-ndə*
 but oneself.3SG self-3SG rest-ACC-3SG tree-GEN branch-PL-ILL
itti-l'e *qwäd'i-z-o* [*tel'i-zä* *čekkiri-gundigo*]_{PURP}
 hang-CVB1 leave-PST-1PL sun-INS dry-SUP.3SG
 'And the rest we hung onto a branch to dry it in the sun'
 Ket: Lower Ket, KMS_1963_KillingEagleOwl_nar.007

The minimal construction incorporating a purpose clause entails a finite verb form in the matrix clause accompanied by an infinitive or converbal form in the constituent clause, as exemplified in the Southern dialect in example (13). It is important to note that the subject of the matrix clause does not necessarily need to be explicitly expressed due to the pro-drop nature of the Selkup language.

- (13) [*Qondu-gu*]_{PURP} *kuza-l-ba-t*
 sleep-INF go.to.sleep-INCH-PST.REP-3PL
 'They went to sleep.'
 Southern: Middle Ob, SEV_1967_ThreeSisters_flk.044

When considering the sequencing of the matrix clause and the constituent clause, the pattern is not entirely straightforward. In con-

structions involving both infinitives and converbs, the majority of cases exhibit a purpose constituent clause following the matrix clause, as demonstrated in example (14) and (15) below. However, it should be noted that the reverse order is also observed. Multiple purpose clauses can occur within a single sentence, often juxtaposed, as illustrated in example (14).

- (14) *Man iidin Satdijedo-t tii-tẓ̌a-n [qweł-i-s-ku]_{PURP1},*
 1SG in.spring Starosondorovo-ILL come-FUT-1SG.S fish-EP-CAP-INF
[čob̄ar-i-m qwad-ə-gu.]_{PURP2}
 berry-EP-ACC catch-EP-INF
 ‘In spring I’ll come to Starosondorovo to fish and to pick berries.’
 Southern: Chaya, PVD_1964_VisitingAuntMarina_nar.013

- (15) *Ija-i-ti tam na q̄an-mmi-nṭɔ-t šöt-ti*
 son-PL-3SG this this leave-PST.REP-INFER-3PL forest-ILL
[täp̄ä-l-lä]_{PURP1} [sur̄ri-l-lä]_{PURP2}
 squirrel-CAP-CVB1 wild.animal-CAP-CVB1
 ‘His sons had gone to the forest to hunt squirrels, (to hunt) wild animals.’
 Northern: Taz, NEP_1965_HareParka2_flk.100

The INFINITIVE is the standard form used to express purpose clauses in the non-Northern dialects. Typically, the purpose clause marked by the infinitive follows the matrix clause, as illustrated in example (16) below and in example (14) above. In Central dialects, the infinitive is accounting for approximately 90% of cases. Similarly, in Southern dialects (~87%) and Ket dialects (~80%), the usage of the infinitive is highly prevalent. However, in Northern dialects, the infinitive ranks second (~28%) after converbs.

- (16) *Qwal-laj meka [ɛl-gu!]_{PURP}*
 go.away-IMP.1DU 1SG.DAT live-INF
 ‘Let us go away to live with me!’
 Southern: Middle Ob, ILP_1981_Poenegesse_flk.014

Simple CONVERBS are employed across all dialect groups, with Northern dialects exhibiting the highest frequency of usage at approximately 45%. In Southern and Ket dialects, converbs rank as the second most common method, following infinitives, accounting for around 11% in Southern dialects and 19% in Ket dialects. In the Central sub-corpus, only five examples containing converbal forms are found, representing a modest 3% occurrence. Example (17) exemplifies a purpose clause employing a converbal form from the Southern Middle Ob dialect.

- (17) *Qwaja-zə* *mad'o-nd* [*kwila-tš-le.*]_{PURP}
 go-PST.3SG.S taiga-ILL fish-TR-CVB1
 'He went to the taiga to fish.'
 Southern: Middle Ob, SMS_1980_ItjaForest_flk.010

In Ket dialects, a notable feature is the use of two distinct words for 'sleep' in purpose clauses, as demonstrated in example (18a). In this construction, the finite verb form in the matrix clause is *qonda-* 'go to sleep' while the converbal form is *kučča-* 'sleep'. Some speakers of the Southern Middle Ob and Chaya dialects also employ this construction. In contrast to Ket dialects, the purpose clause in these dialects is marked by the infinitive form rather than the converb as shown in example (18b).

- (18) a. *Aw-u-r-na-di,* *ir-a-di* [*kuča-l'e*]_{PURP} *qonda-di.*
 eat-EP-FRQ-CO-3DU.O drink-EP-3DU.O sleep-CVB1 go.to.sleep-3DU.O
 'They eat, drink and go to sleep.'
 Ket: Middle Ket, KMS_1966_TwoSisters_flk.042
- b. *Qozai nā-j-qum* [*qonda-ku*]_{PURP} *kuzan-ni-ŋ*
 master woman-ADJZ-person sleep-INF go.to.sleep-CO-3SG.S
sažepo-nt
 floor-ILL
 'The master's wife layed down on the floor to sleep.'
 Southern: Chaya, PMP_1961_DogCatAndMagicRing_flk.264

Different from temporal clauses discussed in section 2.1, in purpose clauses the use of the SUPINE can be observed, primarily in Northern dialects (~25%). In these instances, the purpose clause takes a nominalized form, as shown in example (19a). However, the Central, Southern, and Ket dialects, each show only one example for that in the data. Additionally, evidence exists for both the typical sequence of matrix clause followed by a supine purpose clause and the reverse order (19b).

- (19) a. *Il'ča-ti* *na* *ɔ:l'či-mminti* [*n'ışqil-ti-qonto:qo.*]_{PURP}
 grandfather-3SG this fall-PST.INFER.3SG.S relax-IPFV-SUP.3SG
 'The old man laid down to rest.'
 Northern: Middle Taz, KMP_1971_Ichkyta_flk.072
- b. [*Na ira-n* *ɔ:tä-p* *i-qinto:qo*]_{PURP} *tü-nta*
 this old.man-GEN reindeer-ACC take-SUP.3SG come-INFER.3SG
 'He came to take away the reindeer of this old man.'
 Northern: Middle Taz, NEP_1965_OrphanBoyAndPanOldMan1_flk.034

The NECESSITATIVE PARTICIPLE, also known as the debitive (Kuznecova *et al.* 1980: 255) or gerundivum (Prokofiev 1931: 448), is present in Northern, Southern, and the mixed dialect group. Although examples are scarce, they do exist. These examples demonstrate both the sequence of the matrix clause followed by the purpose clause, as shown in (20) and also the reverse order.

- (20) *Qomtä-tit č'äŋki-mpa [apsi-p i-psa.]_{PURP}*
 money-3PL NEG.EX-PST.REP.3SG.S food-ACC take-PTCP.NEC
 'They didn't have money to buy food.'
 Northern: Baikha, KMG_1976_BriefVacation_nar.015

To conclude the means of asyndetic purpose clauses, it can be stated that in Selkup dialects, the expression of purpose clauses exhibits dialectal variations. The non-Northern dialects commonly use the infinitive as the standard form for purpose clauses, with Central dialects leading at approximately 90%, followed by Southern (~87%) and Ket (~80%) dialects. In Northern dialects, converbs rank second (28%) after infinitives for marking purpose clauses. The use of the supine in purpose clauses is more prominent in Northern dialects (~25%), while the necessitative participle, present in Northern, Southern, and mixed dialects, is characterized by the suffix variant *-sodi* in Southern and mixed dialects. Examples in the data showcase varied sequences of matrix and purpose clauses across dialects.

Syndetic purpose clauses can be formed by using the Russian SUBORDINATING CONJUNCTION *štobi* 'so that'. Different from the pattern of Russian usage – same subject constructions are formed by *štobi* and infinitive, different subject constructions use *štobi* and mostly past tense – in Selkup both in same subject and in different subject purpose clauses *štobi* and nonfinite or finite verb forms can be observed. Evidence of this phenomenon can be observed in all dialect groups. However, except for Central dialects where the Russian conjunction is the second most commonly employed marker, syndetic purpose clauses are rarely found in the data. An example with a finite verb form in the constituent clause can be seen in the Central dialect example (21a). The Southern dialect example (21b) illustrates a syndetic purpose clause with a nonfinite verb form. Note that the form *štobə* is a dialectal variant of *štobi*.

- (21) a. *A mat tab-e-n narošnak čenča-k, [štobi tab igi*
 but 1SG 3SG-EP-DAT deliberately say-1SG.S so.that 3SG NEG
tanu-le-md,]_{PURP} [...]
 know-IMP-IMP.3SG
 'And I tell her on purpose, so she wouldn't know [...]'
 Central: Tym/Narym, YIF_196X_Bear_nar.011

- b. *Nano ili-mba-n [štobə ik qu-gu]_{PURP}*
 that.is.why live-PST.NAR-3SG.S so.that NEG.IMP die-INF
 ‘She lived only not to die.’
 Southern: Chaya/Middle Ob, ChAE_196X_Easter_transl.015

An examination of asyndetic and syndetic markers over time reveals a similar pattern to that observed in temporal clauses (see table 5) and is depicted in table 6. Converbs and infinitives have been used since the earliest texts dating back to 1855, and both markers are present in texts spanning up until the 1980s. The use of infinitives, in particular, is also documented in more recent texts from 2014. The absence of converbs after the 1980s can be attributed to various factors: (i) There may be a shift towards using the infinitive marker, influenced by the Russian language where the infinitive is the preferred option for expressing (same subject) purpose clauses; (ii) It should be noted that the relevant years (1994, 2002, 2014) have limited text evidence with only one speaker per year, so the absence of converbs could also be specific to individual speakers. As previously mentioned, the use of the supine form is primarily observed in Northern dialects. Table 6 illustrates that supine is generally present in texts up to recent times. However, due to the limited amount of evidence available, it is challenging to provide definitive statements regarding its specific usage in Northern dialects or other dialect groups. The usage and distribution of the necessitative participle also cannot be precisely determined due to its rarity in the texts. In contrast to temporal clauses, there is no noticeable increase in the use of conjunctions over time. In fact, the overall occurrence of conjunctions is only 2%. This suggests that the system of purpose clauses is relatively stable and robust compared to the system of temporal clauses.

	1850s	1870s	1910s	1960s	1970s	1980s	1990s	2000s	2010s
CVB	20%	37,5%	–	18,54%	25,98%	–	66,67%	–	–
INF	60%	62,5%	60%	75,45%	54,33%	47%	22,22%	100%	100%
SUP	–	–	–	3,71%	18,11%	1%	–	–	–
PTCP.NEC	20%	–	–	0,26%	0,79%	–	–	–	–
CONJ	–	–	40%	2,05%	–	–	11,11%	–	–

Table 6. Distribution of asyndetic and syndetic means in purpose clauses per decade (all dialects).

In summary, Selkup purpose clauses, illustrating the objective of actions, predominantly use asyndetic constructions. The infinitive is standard in non-Northern dialects, with variations in usage across regions. Converbs, the supine, and the necessitative participle are also

employed. Syndetic purpose clauses with Russian conjunctions are infrequent. Dialectal variations include the predominance of infinitives in non-Northern dialects, especially in Central (90%), Southern (87%), and Ket (80%) dialects. Northern dialects utilize converbs as the second most common marker (28%) after infinitives. The supine persists, but its specific usage is unclear. Over time, markers like converbs and infinitives remain consistent, with a possible shift away from converbs in more recent texts. The overall stability in the system of purpose clauses, demonstrated by limited use of conjunctions and rare occurrences of certain markers, contrasts with the dynamics observed in temporal clauses.

4. Conclusion

The present study reveals that temporal and purpose clauses in Selkup are expressed through diverse means, including asyndetic constructions with infinitives, converbs, action nouns, supines and participles and syndetic constructions with connectors. Furthermore, the analysis highlights significant dialectal variation in the use of these constructions. Notably, the diachronic perspective indicates that asyndetic forms have a long-standing presence in the Selkup language, while syndetic forms utilizing conjunctions emerged relatively late under the influence of Russian either in the form of direct borrowings (especially purpose clauses) or indirectly in the form of loan of patterns (temporal clauses).

In general, temporal clauses tend to be expressed mostly asyndetically or with Selkup conjunctions (especially in the Central dialects), though the specific means of expression vary across different dialects.

In Northern Selkup, temporal clauses predominantly employ asyndetic constructions. The primary marking strategy for temporal clauses is the use of converbs, which accounts for approximately 80% of the occurrences. The second most common strategy involves the use of action nouns, comprising around 11% of the cases. Russian conjunctions are not utilized in these clauses, but Selkup conjunctions are present, accounting for approximately 7% of the instances.

In Central Selkup, the situation differs somewhat from Northern Selkup. Conjunctions are the predominant form of marking temporal clauses, accounting for approximately 52% of the instances. These conjunctions are further divided into borrowed Russian conjunctions, constituting around 40%, and Selkup conjunctions, representing approximately 12%. On the other hand, the use of converbs ranks as the second most common strategy, comprising about 43% of the cases. As a result, syndetic constructions, marked by the presence of conjunctions, appear

to be more frequently employed in Central Selkup compared to asyndetic constructions.

In Southern Selkup, converbs take precedence as the predominant form of marking temporal clauses, accounting for approximately 75% of the instances. On the other hand, the use of action nouns or other infinitive constructions is relatively insignificant, with a relevance of less than 1%. In cases where conjunctions are employed within this dialect group, original Selkup expressions are primarily used, constituting around 22% of the occurrences, while Russian borrowings are infrequently encountered, representing approximately 2% of the cases.

Ket Selkup exhibits certain differences when compared to Southern Selkup, which justifies its classification as a distinct dialect group. In the context of temporal clauses, Ket Selkup shares similarities with Southern dialects in that converbal forms predominate, accounting for approximately 77% of the verbs used. However, Ket Selkup employs more action nouns in temporal clauses than Southern Selkup, amounting to around 6% of the instances. Additionally, it is worth noting that when conjunctions are employed in Ket Selkup, they are exclusively borrowed from Russian, constituting approximately 13% of the cases, while the Selkup equivalents are not utilized.

Lastly, in the available data for the mixed dialect, converbs are the sole marking strategy observed.

Upon examining temporal clauses across different time periods, it becomes evident that converbs and action nouns were already employed in the earliest available texts. However, no instances of conjunctions, whether Selkup or borrowed from another language, were found in these early data sets. It is only in texts from the 1960s, which comprise the majority of the collected data, that syndetic constructions begin to emerge. Despite a hypothesis suggesting that syndetic constructions could replace asyndetic ones, the analysis reveals that this is not the case. Converbs and action nouns continue to be utilized in more recent sources. Nevertheless, there is noteworthy evidence from 2014, originating from a revived speaker, who exclusively employs conjunctions, indicating a significant influence from Russian.

When examining purpose clauses in Selkup, we observe a slightly different pattern that reveals a distinct contrast between Northern Selkup and other dialect groups. The usage preferences clearly diverge between these groups. Northern Selkup places a strong emphasis on the utilization of converbs, accounting for approximately 45% of the occurrences. Conversely, Central, Southern, and Ket dialects predominantly favor the use of infinitives, ranging from 80% to 89% in frequency. Another noteworthy distinction is the presence of the supine form in the

subordinate clause, which is notable in Northern Selkup (around 25%), but negligible in the southern dialect groups. One hypothesis is that the Northern Selkup people had closer contact with the Northern Samoyedic languages (Nenets, Enets, Nganasan), which also possess a supine form. This could explain the usage of the supine in the Northern Selkup dialects. As for conjunctions used to connect the two parts of the sentence, they assume a subordinate role overall. While some instances of their usage can be found in Central and Southern Selkup, it is important to note that these instances always involve borrowings from the Russian language.

When we analyze the evolution of this clause type over time, we observe that the original forms (converbs, infinitives) remain in use. Unlike temporal clauses, conjunctions have minimal presence in both older and more recent texts. This can be attributed to the fact that purpose clauses in Russian are also commonly expressed without conjunctions, using infinitives instead. As a result, structural borrowing is less likely. However, converbs, as an inherent Selkup construction, continue to be utilized in recent texts. Table 7 summarizes asyndetic and syndetic markers in temporal and purpose clauses. Indicated are the percentages of strategies per dialect; the numbers are rounded.

	TEMPORAL CLAUSE				PURPOSE CLAUSE			
	N	C	S	K	N	C	S	K
JUX	2%	5%	>1%	5%	–	–	–	–
ACTN	11%	–	>1%	6%	–	–	–	–
CVB	80%	43%	75%	77%	45%	3%	11%	19%
INF	–	–	–	–	28%	90%	87%	80%
PTCP.NEC	–	–	–	–	>1%	–	–	–
SUP	–	–	–	–	25%	>1%	>1%	>1%
CONJ (Selkup)	7%	40%	22%	–	–	–	–	–
CONJ (Russian)	–	12%	2%	13%	2%	6%	2%	>1%

Table 7. Asyndetic and syndetic markers in temporal and purpose clauses.

In conclusion, this study has provided valuable insights into the expression of temporal and purpose clauses in Selkup, revealing dialectal variation and the influence of Russian on the language. The analysis has shown that temporal clauses are predominantly expressed asyndetically or with Selkup conjunctions, while purpose clauses are almost

exclusively expressed *asyndetically* marked with *converbs* in Northern Selkup and *infinitives* in the other dialect groups. The use of *asyndetic constructions* has a long-standing presence in Selkup, while *syndetic forms* emerged under the influence of Russian. Moreover, the study has found that the original variants, such as *converbs*, *infinitives*, and *supine forms*, continue to be used, and *conjunctions* play a minor role in the most recent texts. These findings have important implications for understanding the evolution of Selkup and its interaction with Russian.

When we take a look at a broader picture, in examining the evolution of *temporal* and *purpose clauses* in Selkup, our study reveals a complex interplay between *innovation* and *conservatism* in *subordinated clauses* in response to language change. We observe the persistence of original *asyndetic constructions*, such as *converbs* and *infinitives*, alongside the emergence of *syndetic constructions* influenced by Russian contact. This dual trajectory provides evidence of both *conservative tendencies*, where traditional constructions endure, and *innovative shifts* driven by external influences.

Abbreviations

1, 2, 3 = person; ACC = accusative; ACTN = action noun; ADJZ = *adjectivizer*; ALL = *allative*; CAP = *captative*; CAR = *caritive*; CO = *co-affix*; CONJ = *conjunction*; CVB = *converb*; CVB1 = *simple verb*; CVB2 = *complex verb*; DAT = *dative*; DIM = *diminutive*; DRV = *derivation*; DU = *dual*; DUR = *durative*; EP = *epenthetic vowel*; EX = *existential*; FRQ = *frequentative*; FUT = *future*; GEN = *genitive*; HAB = *habituate*; ILL = *illative*; IMP = *imperative*; INCH = *inchoative*; INF = *infinitive*; INFER = *inferential*; INS = *instrumental*; INT.PF = *intensive perfective*; IPFV = *imperfective*; JUX = *juxtaposition*; LOC = *locative*; NEC = *necessitative*; NEG = *negative*; O = *objective conjugation*; OBL = *oblique*; PL = *plural*; POSS = *possessive*; PRS = *present*; PST = *past*; PTCP = *participle*; REP = *reportative*; S = *subjective conjugation*; SG = *singular*; SUP = *supine*; TR = *translative*.

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Notes

- ¹ This includes temporal, conditional, purpose and causal clauses as well as adverbial clauses of manner.
- ² Thompson *et al.* (2007) additionally mention circumstantial, simultaneous, concessive, substitute, additive and absolutive clauses.
- ³ The data from one speaker exhibits characteristics of both the Central and Southern Selkup dialect group.
- ⁴ EXMARaLDA Analysis and Concordance Tool, <exmaralda.org/en/exakt-en>.
- ⁵ EXMARaLDA Corpus Manager, <exmaralda.org/en/corpus-manager-en>.
- ⁶ About 300 years ago, the Northern Selkups migrated from the Ob river to the Yenisey and Taz river basins, experiencing minimal Russian influence. In contrast, the Ket dialect speakers in the eastern Selkup territory, along the Ket river, were already incorporating Russian discourse and modal words during that period. The Central and Southern Selkups, residing along the Ob river and having extensive contact with Russians, were the most significantly influenced, particularly in their fundamental lexicon.

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