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Marking strategies of attributive possession in Selkup: A study of frequency and types of possession

This paper deals with attributive possession in North, Central and South Selkup and focuses on a quantitative analysis of the frequency with which marking strategies are used in Selkup dialects. In Selkup, attributive possession can be head marked (with a possessive suffix), dependent marked (with genitive or adessive marking), and double marked (both combined), but close study shows that while dependent marking with genitive is most commonly used for lexical possessors, for non-lexical possessors the most common usage is head marking with a possessive suffix. The paper also illustrates the usage of different types of possession (e.g. inalienable/alienable) and shows that they are rarely treated differently with regard to their marking.

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I. Introduction

This paper aims at providing an overview of different marking strategies for attributive possession and quantifying their frequency, as well as examining whether the type of possession plays a role in choosing a strategy. Marking strategies for attributive possession in Selkup are well established and described (among others, Kuznecova et al. 1980; Kim 1985; Bekker et al. 1995a; Budzisch 2015; Kim-Maloney & Kovylin 2015; Vorobeva et al. 2017), but in those descriptions the strategies are often presented as being equal,

and only a few notes on usage are provided. The objective of this study is to present a corpus-based approach and expand the picture of attributive possession in Selkup. This article also seeks to highlight dialect diversity and to place Selkup within the broader context of Samoyedic languages.

Thus, new insights into possessive relations, especially concerning third-person possessors, can be won. This mainly applies to the distribution of the use of pronouns and possessive suffixes. Grammatical descriptions, both for North (Kuznecova et al. 1980: 187) and for Central and South Selkup (Bekker et al. 1995a: 80), have claimed that third-person possession is most commonly marked with pronouns, but as this paper will explore, the corpus data paints a different picture: here, too, possessive suffixes are mainly used.

The paper is structured as follows. In Section 2 a brief introduction will be given to the notion of possession used in this paper. In Section 3 the Selkup dialects studied with regard to the topic of possession and the corpus data used in this paper are presented. In Section 4 lexical possessors are investigated in the three main dialects of Selkup, then Section 5 examines non-lexical possessors again in all three main dialects. In Section 6 the findings are summarized.

2. Possession

In this paper, a possessive relationship is defined in a rather narrow sense as a relationship of ownership (*Peter's house*), a kin relationship (*my grand-mother*) or a part–whole relationship (most typically body parts: *his nose*). In that way, the findings on Selkup are comparable to other previous works in typology (see among others Koptjevskaja-Tamm 2003 and Haspelmath 2017). A widespread distinction made between these kinds of possessive notion is alienable vs. inalienable possession. Inalienable possession indicates that the possessor and the possessed are inseparable (kinship, body parts), while alienable possession means they are separable or the relationship is not permanent (ownership). It must be emphasized, however, that this distinction is a scale and that there are no clear boundaries. For the sake of clarity, in this paper body parts and kin relationships are seen as inalienable, while ownership of some kind of material possession is regarded as alienable.

Possessive relationships can be expressed as attributive (*my leg*) or predicative (*I have a leg*), but only attributive possession is taken into account in the following study. In attributive possession the two components of the possessive relation, namely the possessor and the possessed, form

a noun phrase in which the possessed is the head of the phrase. The possessor can be expressed either lexically (*Martin's father*) or non-lexically (*his father*). In some languages, the possessive relationship between the possessor and the possessed is expressed merely through juxtaposition, but the relationship is rather often overtly marked on either one of the elements (Koptjevskaja-Tamm 2003). In head-marked constructions (marking on the possessed), a possessive affix is usually used, while in dependent-marked constructions (marking on the possessor), the genitive case is commonly used to mark the relationship (Koptjevskaja-Tamm 2001: 961). In double-marked constructions (marking on both components), a combination of both elements is used (see also Nichols 1986).

3. Selkup dialects and corpus data

Selkup is a Samoyedic language spoken by approximately 1,000 speakers in Western Central and North West Siberia. Its closest relatives were Kamas and Mator, together they formed the South Samoyedic branch, but both of these languages are now extinct. The North Samoyedic¹ languages Nenets, Enets and Nganasan are still spoken today. Selkup can be divided into at least three dialect groups (with several subdialects), namely North, Central and South Selkup, with North Selkup behaving significantly differently from the latter two in many respects. Table 1 shows the dialect groups with the respective subdialects.

Table 1: Selkup	dialects	(following	Gluškov et al	2012: 50ff)
Table 1. Scinub	urarcets	HILMOHOLL	GIUSKUV CL al	l. 2011. 1011./

North	Central	South
Taz	Vakh	Middle Ob
Laryak	Tym	Chaya
Karasino	Vasyugan	Ket
Turukhan	Narym	Upper Ob
Baikha		Chulym
Yelogui		

The term North Samoyedic languages is used here as a terminus technicus for any kind of summary of the languages Nenets, Enets and Nganasan. As the internal classification of the Samoyed languages has not been answered conclusively, it is not clear whether the North Samoyed languages are a genetic unit or rather an areal grouping.

The dialects show a slightly different consonant and vowel inventory and phonetic isoglosses can be depicted. For example, Central Selkup shows an $s \sim h$ variation: while it is surip 'wild animal, beast' in North and South Selkup, the variant most commonly used in Central Selkup is hurip id. Noteworthy, also for the present topic, is the nasal–plosive alternation. The alternation occurs between $m \sim p$ ($\sim \varnothing$) and $n \sim t$ ($\sim \varnothing$) and is to be found in free morphemes ($surip \sim surim \sim suri$ 'wild animal, beast') as well as in bound morphemes (genitive: $-n \sim -t$). It sometimes functions as a dialectal isogloss, but it can also be found as a free variant within a dialectal group.

Nouns in Selkup are declined for number, case and possession, where the order of inflectional morphemes is usually as follows: stem [+ derivational suffix] – number – case – possession. In all dialects, there are three numbers: singular, dual and plural. While the singular is always unmarked and the dual is marked in all dialects with the ending -qi, there are some variants that are only found in some (sub)dialects: -j(a) in Taz, Narym and Middle Ob, $-q\ddot{a}:qi$ in North and Central Selkup, and $-\dot{s}tja(qi)$ in Central and South Selkup. The plural marker shows dialectal variation as well: in all dialect groups -t marks the plural, but in Central and South Selkup, the suffix -la is also used.

The case systems differ slightly depending on the dialect as well. Here, only the cases playing a role in attributive possession will be examined: the nominative, the genitive and the adessive. The nominative is unmarked and the genitive is marked with the suffix -n or -t (nasal-plosive alternation in free distribution) in all dialects. The adessive (ending -nan) on the other hand is only present in South and Central Selkup; North Selkup lacks this case completely. Table 2 presents the case suffixes used in marking possession in the Selkup dialects.

Table 2: Case suffixes in Selkup dialects (possessive marking)

	North	Central	South
NOM	-Ø	-Ø	-Ø
GEN	$-n \sim -t$	$-n \sim -t$	$-n \sim -t$
ADE	_	-nan	-nan

^{2.} The dialectal isogloss can be seen, for example, in the following: in the Ket dialect of South Selkup, there is only the form *qup* 'person', in the Tym dialect (Central Selkup) only *qum* id. Meanwhile, in the Taz dialect (North Selkup) a free distribution of *qup* ~ *qum* id. is documented (Kuper 1986: 103).

While the genitive (as mentioned in Section 2) is commonly used to mark possession, the adessive in Selkup needs more illustration. The adessive denotes a location adjacent to the referent of the noun. The case is named differently in most descriptions of Selkup, e.g. *locative-personal* in Bekker et al. (1995) and *locative II* (with the note that it is only used for animate referents) in Bykonja et al. (2005), both indicating that the case suffix can only be attached to animate nouns, though this is imprecise, as example (1) shows:

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(1) Känaŋ-dɨ päa-nɨn saːra-mba
dog-poss.ʒsg tree-ADE bind-pst.rep.ʒsg.s
'He tied his dog to the tree.'
(South: Ket, SVG_1964_IitekaPineweldju_flk.o26)
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Nonetheless, due to the nature of the adessive, it is far more frequently attached to animate nouns overall. It is mostly used in marking predicative possession (as e.g. in Finnish), but as will be shown in the following sections, in Central and South Selkup it is also used in attributive possession. In example (2), the use in a possessive sentence is presented.

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(2) Ma-nan ando-m ε-ja.

1SG-ADE boat-POSS.1SG be-AOR.3SG

'I have a boat.'

(Central: Vasyugan, ChDN_1983_HerosDaughter_flk.035)
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Possession can also be marked on the noun with possessive suffixes. In Selkup, there is no distinction for the number of the possessed, only the number and person of the possessor are taken into account. In Table 3, the possessive suffixes in the nominative for Central and South Selkup are presented.

Table 3: Possessive suffixes (nominative) in Central and South Selkup (Bekker et al. 1995a: 65)^a

	SG	DU	PL
1P	-mɨ	-mɨː	-mɨn ~ -mɨt
2P	-l i	-l i ː	-lɨn ∼ -lɨt
3P	-ti	-tɨː	$-tin \sim -tit$

 Selkup shows high dialectal variance, so the suffixes listed here may appear in the data in slight modifications and abbreviations.

While Selkup is, as can be expected from a Uralic language, an agglutinative language, it shows fusional tendencies when it comes to possessive suffixes in several cases, e.g. in most local cases. There is one possessive ending for locative, illative and ablative, which is <code>-qinti</code> 'LOC/ILL/ABL.POSS.3SG' in the third-person singular; the case and possessive suffix cannot be separated in this fused ending (a full paradigm of possessive suffixes in different cases can be seen in Kuznecova et al. 1980: 185ff.). Furthermore, it is important to note that in Selkup as in other Samoyedic languages, possessive suffixes are not only used to mark possessive relations but are also used to track reference and mark semantically unique referents like the sun (e.g. Kim-Maloney & Kovylin 2015: 41; Budzisch 2017, 2021). However, in Selkup only the third-person singular possessive suffix is used in that regard, while in other Samoyedic languages first- and second-person suffixes can also be used in a non-possessive function; see e.g. Körtvély (2010) for (Tundra) Nenets, Siegl (2013: 371ff.) for (Forest) Enets and Zayzon (2015) for Nganasan.

There are no crucial differences between the inflection of nouns and pronouns in Selkup. Also, there are no specific possessive pronouns in Selkup, but the genitive form of the personal pronoun is used in this function in all dialects; for first and second person, nominative and genitive pronouns are homonymous, but in the third person nominative and genitive are clearly distinguished. In Central and South Selkup, the adessive pronoun can also be used to mark possessive relations. In Table 4, personal

Table 4: Personal pronouns in Central and South Selkup (Bekker et al. 1995b: 71, 79–82)^a

	NOM	GEN	ADE
1SG	man ~ mat	man ~ mat	manan
2SG	tan ~ tat	tan ~ tat	tanan
3SG	tep	tepin ~ tepit	tep i nan
1DU	me	me	menan
2DU	te	te	tenan
3DU	tepqi	tepq i n ~ tepq i t	tepq i nan
1PL	me	me	menan
2PL	te	te	tenan
3PL	tepɨt; tepla	tepɨtɨn ~ tepɨtɨt; teplan ~ teplat	tep i tinan; teplanan

a. As already mentioned for the possessive suffixes, it also applies to the pronouns that they can appear in variants that cannot all be listed here.

pronouns in Central and South Selkup are presented in the nominative, genitive and adessive. The aforementioned nasal–plosive alternation can be seen in both lexemes themselves (e.g. $man \sim mat$) and in the genitive endings for third persons; also in Central and South Selkup, two endings (-t and -la) for marking the plural can be found. Note that in North Selkup, there is no adessive case and only the first mentioned plural variants are in use, but apart from that the pronouns are the same.

Also worth mentioning, even if not a marking strategy on its own, is the Selkup intensifier pronoun with the base *on*-, which can be used to amplify pronouns, also in possessive constructions as shown in the following example (3), but is not used to mark possession itself.

(3) [...] pone čanni-mba onže outwards go.out-pst.rep.3sg.s int.3sg

ad'uka-m-de pone i-mba-d.
grandmother-ACC-poss.3sg outwards take-pst.rep-3sg.o
'[...] he went out and took his own grandmother out.'
(Central: Vasyugan, ChDN_1983_Nikita_flk.044)

Overall, Selkup is in many respects a rather well-described language even though many materials are not yet published. Two grammars are worth mentioning explicitly, which also serve as a reference throughout this paper. In 1980, the grammar Očerki po seľkupskomu jazyku: Tazovskij dialekt by Ariadna Kuznecova, Eugen Helimski and Elena Grushkina was published, and as the title suggests the book only takes North Selkup (Taz dialect) into account, but it is still the only full grammatical description of Selkup. In 1995, Erika Bekker, Larisa Alitkina, Valentina Bykonja and Irina Il'jašenko published Morfologija sel'kupskogo jazyka: Južnye dialekty (two volumes), in which they describe the phonology and morphology of Central and South Selkup in detail. Both works provide many helpful insights into the language and its grammatical peculiarities, but with the new possibility of examining digital corpora, new findings can be detected. This specifically holds true for Central and Southern Selkup, as North Selkup has often been the main focus in studies about Selkup. The quantifying study presented here, however, is based on the Selkup Language Corpus (SLC, Budzisch et al. 2019), a corpus containing 144 texts covering North, Central and South Selkup. The corpus is based on texts already published (but not made digitally available before), recorded in 1846-2014 by various researchers, with most texts having been recorded between the 1960s

and the 1980s. The corpus data and the data in the two grammars mentioned are well comparable, since for North Selkup the text basis covers the same dialect as the grammars, and most texts are conducted by the same researchers. This is also the case for the Central and South Selkup parts of the corpus, which largely take into account fieldwork records that have been used to compile the grammar by Bekker et al. (1995). The focus of the corpus is on Central and South Selkup indicated also by the text distribution: there are 26 North, 48 Central and 66 South Selkup texts in the data set. A more detailed overview of the data distribution is presented in Table 5.

Table 5: Data distribution in the SLC corpus

	North Selkup	Central Selkup	South Selkup
Texts	26	48	66
Sentences	1,140	3,426	4,018
Tokens	7,814	21,856	22,417

The corpus mainly covers three genres: folklore texts (109 texts), stories about daily life (16 texts) and translations (19 texts), providing an overview of different structures in the language. The reference given for each example refers to the name of the text as used in the corpus, the number at the end of each reference indicates the sentence number, and thus every example is traceable in the data. For more details on the corpus and the naming of texts, see Behnke & Budzisch (2021).

4. Lexical possessors in Selkup

In the Samoyedic languages in general, dependent marking with the genitive is the most common way to mark attributive possession with a lexical possessor. It is described for the North Samoyedic languages (Tundra) Nenets (Nikolaeva 2014: 143), (Forest) Enets (Siegl 2013: 234f.; Ovsjannikova 2020) and Nganasan (Wagner-Nagy 2014; 2019: 317), but also for the extinct South Samoyedic languages Kamas (Künnap 1999b: 16) and Mator (Helimski 1997: 137). For the North Samoyedic languages, it is also possible to use double marking with both the genitive marking on the possessor and a possessive suffix on the possessed, even though the possessive suffix is never obligatory (Nikolaeva 2014: 143, Wagner-Nagy 2019: 317). Künnap

(1999a: 18) believes the suffix to be used emphatically in Enets, but Siegl (2013: 234ff.) sees the need for further research in this area. The data set for Kamas and Mator is too small to give a more detailed account of the use of possessive suffixes with a lexical possessor.

Furthermore, Winkler (1913: 121) mentioned that in the Samoyedic languages in general the marking of a possessive relation between a lexical possessor and the possessed can be marked with juxtaposition, whereby the possessed might carry a possessive suffix. Sebestyén (1975: 41) calls this "a Uralic inheritance" as there are traces of this strategy in Finno-Ugric as well as Samoyedic languages (cf. Sebestyén 1975: 41ff.).

Both for North (Kuznecova et al. 1980: 173) and Central and South (Bekker et al. 1995a: 128) Selkup, dependent marking with the genitive is described. For North Selkup, double marking is thought to be rare, while in Central and South Selkup it is more commonly used (Bekker et al. 1995a: 83). Additionally, in Central and South Selkup the adessive can be used in the same way as the genitive (as mentioned before, the case does not exist in North Selkup) (Bekker et al. 1995a: 83).

In the following sections, a detailed view of different marking strategies in the Selkup dialect groups is presented to see whether the statements mentioned above hold true against the corpus data. In Section 4.4, the findings are summarized and quantified.

4.1. North Selkup

Dependent marking with the genitive is the default marking strategy in North Selkup for attributive possession, be it body parts (4), kinship relations (5) or the marking of ownership (6).

- (4) Ima imaqota-t üŋkilsa:-qit manni-mpa-ti.
 woman old.woman-GEN ear-LOC see-PST.REP-3SG.O
 'The woman looks into the old woman's ears.'
 (North: Taz, BVP_1973_East_flk.o38)
- (5) Šettir-qit qən-nɔː-tit nätä-t əsi-p peː-lä.
 spring-Loc go.away-Aor-3PL girl-GEN father-ACC search-CVB
 'In spring they left to search for the girl's father.'
 (North: Taz, AVA_1973_Ichakicha_flk.075)

(6) Palna-n mɔːt-tɨ man aššă iččɨ-r-na-ŋ.
Palna-GEN tent-ILL 1SG NEG go-FRQ-AOR-1SG.S
'I do not go into the Palna's tent.' (North: Taz, APA_1977_Palna_flk.007)

According to Kuznecova et al. (1980: 187), double marking is ungrammatical, while Bekker et al. (1995a: 83) state that the combination of a genitive marking with a possessive suffix is possible but rarely used in North Selkup. The corpus data reflects the latter statement: there are a total of a mere four out of 75 occurrences (see also Table 6 below) showing double marking, two of them marking kinship, the remaining two marking ownership. Example (7) shows the marking of a kinship relation with the genitive on the possessor and the possessive suffix on the possessed.

(7) *Iča-n ima-ti qu:-mpi*Itja-GEN woman-POSS.3SG die-PST.REP.3SG.S

'Itja's wife is dead.' (North: Taz, BEP_1977_Icha4_flk.026)

Apart from that, there are but two occurrences where the possessor is completely unmarked – one with ownership (8), the other within an unmarked kinship relation.

(8) *Iča nil'či-k loːs-ira kin'či-p to: imi-ti*Itja such-ADV devil-old.man bolt-ACC away take-3sg.o

'So Itja takes the devilish old man's bolt.'

(North: Taz, BEP_1973_Itja2_flk.o15)

4.2. Central Selkup

In Central Selkup the same holds true as for North Selkup: the most frequent marking strategy for lexical possessors is dependent marking with merely the genitive on the possessor. Also in these dialects, it can be used to link body parts to the respective person (9), to mark kinship relations (10) or ownership (11).

(9) Tü:-t haj pakti-mba üčed'e-l'ika-t kil-o-nd fire-gen eye jump-pst.rep.3sg.s child-dim-gen chest-ep-ill al't'i-mba. fall-pst.rep.3sg.s

'A spark flew off and fell onto the child's chest.'
(Central: Vasyugan, ChDN_1983_MistressOfFire_flk.014)

- (10) Mat tö-mba-k amdelgu-n ne-p
 1SG come-PST.REP-1SG.S tsar-GEN daughter-ACC

 i-hu pika-nd.
 take-INF bull-ILL

 'I have come to take the tsar's daughter for the bull.'
 (Central: Narym, MNS_NN_BullSon_flk.027)
- (11) [...] na:yur kjöt a:mdeyo-t ma:t-kit [...] three ten tsar-GEN tent-LOC

 '[...] in the house of the thirtieth tsar [...]'

 (Central: Tym/Narym, TTD_1964_Frog_flk.078)

Double marking with the genitive on the possessor and a possessive suffix on the possessed is far more frequent in Central Selkup than in North Selkup. There are 29 occurrences with this combination for kinship relations (12) and body parts (13) – the prototypical inalienable possession – but only two occurrences for ownership (see Table 7 below).

- (12) Paja-n i:-t šot-qəndo old.woman-GEN son-POSS.3SG forest-ABL.POSS.3SG tö-mba. come-PST.REP.3SG.S

 'The son of the old woman comes from the forest.' (Central: Tym, MNN_1977_VillageKuleevo_nar.013)
- (13) Ara-n ol-t aj tɛ pača-nna-t.
 old.man-GEN head-POSS.3SG again away chop-AOR-3SG.0
 'They cut off the old man's head again.'
 (Central: Narym, NS_NN_BullSon_flk.056)

Apart from the genitive marking, the marking of the possessor with the adessive in Central Selkup has been described in detail (e.g. Kim 1985; Budzisch 2015; Kim-Maloney & Kovylin 2015; Vorobeva et al. 2017). Bekker et al. (1995a: 83) claim that it is the most widely used construction in the Tym (Central) and Ob (South) dialects of Selkup and is used in these dialects to mark all types of possession. Kim (1985: 50) on the other hand declares that it is only used in the Tym and Narym dialects (both Central Selkup). The corpus shows findings for the Narym, Tym (both Central), Ket and Ob (both South) dialects, but overall the adessive is rarely used in attributive possessive constructions in the corpus data, though it is very

commonly used in marking predicative possession. In predicative possessive constructions, the possessor in the adessive and the possessed are not part of the same nominal phrase, but in attributive possessive constructions they indeed are, as they cannot be split up: the possessor marked with the adessive always precedes the possessed. It is therefore clear that when used to mark the possessor with the adessive in these constructions, it indeed is an internal and not an external possessor (see König 2001). Adessive marking without a possessive suffix is only used for body parts in the Central Selkup data under investigation here (14).

(14) Ara-lǯiga-nan ol tɛp ača-l-ba.
old.man-dim-ade head away chop-res-pst.rep.3sg.s
'The old man's head is chopped off.'
(Central: Narym, MNS_NN_BullSon_flk.o57)

The adessive in combination with a possessive suffix, however, is not only used for body parts (15) but also for kinship terms (16), hence all of the prototypical inalienable possession, but there is no occurrence for alienable possession in the data.

- (15) Ara-nnan olo-m-d tep ača-l-ba-t.
 old.man-ADE head-ACC-POSS.3SG away chop-RES-PST.REP-3SG.O
 'They cut off the old man's head.'
 (Central: Narym, MNS_NN_BullSon_flk.o37)
- (16) Warya ne:nda-nan i:m-da nepta-me-mba:-t
 big sister-ADE son-ACC-POSS.3SG name-TRL-PST.REP-3SG.O

 Stepan Sareič'.
 Stepan son.of.the.tsar

 'The son of the oldest sister was called Stepan Sareič'.'
 (Central: Narym, SDP_1964_FairytaleBlackZar_flk.060)

As in North Selkup, there are also occurrences with an unmarked possessor in the data for Central Selkup. They are only attested for inalienable possession in Central Selkup: kinship terms (17) and body parts.

(17) [...] tab-i-p šedegut amdelgup ne-he [...]
3SG-EP-ACC together tsar daughter-COM

'[...] he together with the tsar's daughter [...]'
(Central: Narym, KIA_2014_GiantZobel_trans.044)

The combination of an unmarked possessor with a possessed marked with a possessive suffix can also be found, but only with kinship relations (and again, these finds are very rare, only 7 occurrences). It is not clear whether these really are unmarked possessive relations or rather compounds:

(18) Iga i-m-d kwe-r-i-m-dit Kitka. child son-ACC-POSS.3SG call-FRQ-EP-PST.REP-3PL Kitka 'They called her grandson [lit. her child's son] Kitka.' (Central: Vasyugan, ChDN_1983_Nikita_flk.002)

4.3. South Selkup

Dependent marking with only the genitive on the possessor (i.e. no additional possessive suffix on the possessed) is the marking strategy most frequently used for body parts (19) and ownership (20) in South Selkup.

- (19) Ti:yon I:d'ä-n udə-nd kwat'-o-n.
 Tatar.prince Itja-GEN hand-ILL catch-EP-3SG.S

 'The Tatar prince grabs for Itja's hands.'

 (South: Chaya, NN_1913_Itja_flk.040)
- (20) *I:t'e-n tisse*.

 Itja-GEN arrow

 'Itja's arrow.' (South: Ket, SVG_1964_Stars_flk.018)

These findings show that the preliminary analysis by Vorobeva et al. (2017: 57) stating that "affixation is obligatory in Southern Selkup for expressing inalienable possession" does not hold true, as there are regular occurrences for exactly the opposite (here shown in example (19), a total of 83 occurrences out of 141 for inalienable possession, see also Table 8). However, to mark kinship relations, the corpus data suggests that it is more common to use double marking: the genitive marking on the possessor and a possessive suffix on the possessed (21). Bekker et al. (1995a: 83) claim that double marking is the most common marking strategy in the Ket dialects of South Selkup for kinship terms and ownership. This holds true for kin relationships in all of South Selkup dialects, but there are only 7 occurrences for ownership marking.

(21) Qiba_nejd'e-n n'e:-t ni-nka-n forest.woman-GEN daughter-poss.3SG stand-AOR-3SG.S qo:-n-pa:r-o-kon. coast-GEN-top-EP-LOC

'The forest woman's daughter stands on the bank.'
(South: Middle Ob, PMP_1961_ForestWoman_flk.074)

Regarding the use of the adessive in South Selkup, there are more occurrences for the adessive with the possessive suffix than without: the adessive on the possessor and a possessive suffix on the possessed are used to mark body parts and ownership (22), but there are no instances found where kinship terms are marked with that strategy. The marking with only the adessive is attested for only two occurrences, both marking ownership (23).

- (22) Loya-nan mat-tə wary e-k.
 fox-ADE house-POSS.3SG big be-3SG.S
 'The house of the fox is big.'
 (South: Ket, TET_1979_TheHaresHouse_flk.009)
- (23) [...] sü-n paja-ndi-nan tul'd'ö-qin wes dragon-GEN woman-OBL.POSS.3SG-ADE box-LOC all ündi-de-t. hear-IPFV-3SG.O
 '[...] in the box of the dragon's wife and hears everything.'
 (South: Middle Ob, PMP_1961_Fairytale_flk.264)

Overall the occurrences of attributive possession marked with the adessive are again few in number (9 occurrences), especially when compared to the use of the genitive (172 occurrences). Therefore, the corpus data contradicts the claims of Bekker et al. (1995a: 83): the adessive (with or without an additional possessive suffix) is in fact not commonly used in the Ket and Ob dialects in attributive possessive constructions and it is also not used for all types of possession. On the contrary, the findings by Budzisch (2015) and the statement made by Vorobeva et al. (2017: 58) seem to hold true also with a larger data sample: "The occurrences with the lexical possessor marked for the locative [here: adessive] are very limited, the genitive case is by far the most prominent and common marker for nominal PNPs [here: lexical possessive NPs]" (Vorobeva et al. 2017: 58).

As in the other dialects, there are also a few occurrences with an unmarked possessor. Findings show two examples for body parts (24) and one for ownership, while the combination of an unmarked possessor with a possessive suffix on the possessed is found only for inalienable possession: kinship (25) and body parts; it is again very low in frequency.

- (24) Tap as qunte-ŋ manni-mpa-t qiba_ned'eŋ oli-m.
 3SG NEG long-ADV look-PST.REP-3SG.O forest.woman head-ACC
 'She did not look at the forest woman's head for long.'
 (South: Middle Ob, PMP_1961_ForestWoman_flk.o65)
- (25) Ti:yon paja-t istol n'akke-lǯe-t.
 Tatar.prince woman-Poss.3sG table undress-TR-3sG.0

 'The Tatar prince's wife sets the table.'
 (South: Chaya, NN_1913_Itja_flk.039)

4.4. Overview of lexical possessors in Selkup

Regarding North Selkup, the findings in the data set corroborate the claims mentioned above by Kuznecova et al. (1980) about North Selkup: for lexical possessors, the picture is rather unequivocal – North Selkup mostly uses dependent marking. The possessor is marked with the genitive. Double marking is indeed very rarely used, as mentioned by Bekker et al. (1995a: 83). Completely unmarked possessive relations are very uncommon in North Selkup for lexical possessors, it seems to be the case in the corpus data that the possessive relation has been introduced before and hence the need to mark it again explicitly is lowered, though this needs further research. The corpus data does not suggest that the type of possession plays a role in the selection of a marking option. In Table 6, the frequencies of the marking strategies found in the SLC corpus for lexical possessors in North Selkup are presented.

Table 6: Frequency of marking strategies for attributive possession with a lexical possessor in North Selkup

	Dependent marking with genitive	Double marking with genitive and possessive suffix	Unmarked
Body parts	21	_	1
Kinship	23	2	_
Ownership	25	2	1

Central Selkup exhibits more options to mark lexical attributive possessive relations, but this dialect, too, mostly uses the marking with genitive on the possessor, sometimes with an additional possessive suffix. The other marking strategies are very low in terms of frequency, which is noteworthy (even though it has been mentioned in other studies as well) because the adessive marking strategy is commonly assumed to be of greater importance in Central and South Selkup than it is. One reason for that might be that it plays an important role in expressing predicative possession; it is therefore closely linked to the marking of possessive relations which might have led to the assumption that it is commonly used in attributive possession as well. Furthermore, in the qualitative analysis of possession in Selkup as carried out in the past, the unusual use of the adessive pronoun might have seemed interesting and therefore been mentioned. That might have led authors to overstate the use of the adessive pronoun slightly, as it is only now possible to search through a larger data set digitally, which makes statistical analysis much easier than was possible for descriptions such as Bekker et al. (1995a). The frequency of marking strategies for lexical possessors in Central Selkup is summarized in Table 7.

Table 7: Frequency of marking strategies for attributive possession with a lexical possessor in Central Selkup

Type of possession	dent marking with	Double marking with geni- tive and possessive suffix	dent marking with	marking with ades- sive and		
Body parts	48	17	3	4	8	_
Kinship	54	12	_	4	3	7
Ownership	14	2	_	_	_	

The statements made above for Central Selkup also hold true for South Selkup: dependent marking with the genitive or double marking with the genitive and a possessive suffix are most commonly used in South Selkup as well. Again the adessive is of low importance, even though it is stated otherwise in Bekker et al. (1995a: 83). Interestingly, when looking at Table 8, it becomes clear that in South Selkup body parts and ownership are usually marked with only the genitive, while for kin relationships the additional use

of the possessive suffix is more common. South Selkup differs from Central and North Selkup in that respect. This is especially noticeable because one would expect an alienability split to appear between inalienable (body parts and kinship) and alienable (ownership), but not to separate these two categories. From a typological viewpoint, it is expected that if there are different strategies of marking, alienable possession would be more overtly marked (e.g. double marked) than inalienable possession (e.g. Haspelmath 2017). The assumption about an alienability split applies both to assuming that it is triggered by the iconic principle (see Haiman 1983) and to assuming that frequency of possessive marking is the deciding factor (see Haspelmath 2017). Kin relationships are commonly marked for possession in Selkup, and these expressions are relational, i.e. within them the relationship to another entity is expressed, therefore double marking is typologically remarkable because ownership is mostly dependent and therefore lesser marked in South Selkup. It can be concluded that the notion of alienability is not the decisive or sole factor here, but further research is needed.

Table 8: Frequency of marking strategies for attributive possession with a lexical possessor in South Selkup

Type of possession	dent marking with	Double marking with geni- tive and possessive suffix	dent marking with	marking with ades- sive and		Head marking with posses- sive suffix (+ unmarked possessor)
Body parts	75	7	_	4	2	3
Kinship	8	39	_	-	_	3
Ownership	36	7	2	3	1	_

In all three dialects, some occurrences of unmarked possessors (sometimes with a possessive suffix on the possessed) could be detected. It was briefly mentioned that it is quite unclear in some cases whether they are to be analyzed as attributive possession or compounds. But in most occurrences, there are no indications whatsoever that these expressions are commonly expressed with compounds in Selkup. Winkler (1913) and Sebestyén (1957) both have also reported that unmarked possession (or head-marked possession with an unmarked possessor) is to be expected in Samoyedic languages. Therefore, even though not frequent in use, it is fair to conclude that this does happen in Selkup.

Apart from the aforementioned strategies, there are constructions in which a "quasi" owner is marked with the adjective suffix -l'. It is however only rarely possible to read these occurrences as strictly attributive possession: examples such as *nu-l mat* [god-ADJZ house] are not interpreted as 'the house of god' here but rather as 'the godly house' or, simply, 'the god house' and hence are not seen as attributive possessive constructions. Some finds represent attributive possession less ambiguously, example (26) being one of them:

(26) [...] aj midi-mba Kat-man-puč-e-l ando-nd. and reach-pst.rep.3sg.s Kat-Man-Puch-ep-Adjz boat-ill '[...] and came to Kat-Man-Puch's boat.' (Central: Narym, KIA_2014_KatManPuch_trans.017)

These are very rare in the data under investigation in this study and mostly attested for a single speaker; all her texts are also written translations of Russian texts. Orlova (2018: 31) investigates the denominal -l' forms in North Selkup and finds that "in this [attributive] function they denote a kind of relation to the head of the NP such as: properties, possession, material etc.", but she does not provide any more detail on how much it is actually used for marking possession. A larger data set for North Selkup should be investigated for this. Under the present circumstances, this cannot be seen as a common way to mark possessive relations in the sense applied in this study.

Overall, the results of the quantitative evaluation show that Selkup dialects show agreement in many points but also behave differently in some respects, e.g. Central and South Selkup use adessive marking, and South Selkup tends to double mark kin relationships with a lexical possessor while the other dialects do not. They also show that a corpus-based approach is worthwhile even for topics that seem to be well studied. As mentioned in the introduction, attributive possession in Selkup is not a "new" topic, but the findings with the new possibilities of involving digital corpora differ from older descriptions.

Comparing the outcome of this analysis to the other Samoyedic languages mentioned above, it becomes clear that Selkup fits the picture rather well: it too mostly uses dependent marking with the genitive like the related Samoyedic languages do. Double marking with additional possessive suffixes is possible, especially in Central and South Selkup; but the use of the suffix never seems to be obligatory. In Koptjevskaja-Tamm (2003: 641f.), it is shown that many other Uralic languages also show a similar pattern between dependent marking, double marking and juxtaposition.

5. Non-lexical possessors

For non-lexical possessors, there are several ways to express them in all Samoyedic languages. In North Samoyedic languages, they are marked with an obligatory possessive suffix (head marking) but a pronoun is optionally possible, making double marking an option. There are no special possessive pronouns, but personal pronouns in the nominative are used (see Nikolaeva (2014: 142ff.) for (Tundra) Nenets, Siegl (2013: 233f.) for (Forest) Enets and Wagner-Nagy (2019: 317) for Nganasan). The extinct South Samoyedic language Kamas shows head marking, dependent marking and double marking (Künnap 1999b: 14-16, 33), while for Mator, the use of possessive suffixes is reported as well as a form of possessive pronouns, but there is not enough data to speak with certainty about the use in attributive possessive constructions (Helimski 1997: 141). For all Selkup dialects, a split between the marking strategies for first- and second-person possessors, on the one hand, and third-person possessors, on the other hand, is reported, with head, dependent and double marking in different combinations. Whether these claims can be validated against the corpus data will be examined in the following sections.

Additionally, Tauli (1966: 65) suggested that there might be a process taking place in all Uralic languages, but Samoyedic languages especially, from head marking to double marking to dependent marking; but while it is true that the use of pronouns in Samoyedic languages is very rare in early data (Sebestyén 1957: 45), according to the recent descriptions, it still is rare in the more recent data. The general idea of a grammatical process seems to be out of place here, as possessive suffixes are still widely used in the North Samoyedic languages and also in Selkup, as the following sections will show.

5.1. North Selkup

For North Selkup, Kuznecova et al. (1980: 187) describe that for first- and second-person possessors the possessive relation is always marked with a possessive suffix on the head of the phrase. The corpus data shows indeed that head marking is prominently used in these regards (29 occurrences out of 39 in total), with kinship (27), body parts (28) and ownership (29).

- (27) Onäk qos qu-lä-k, i:ja-m ili-ŋı:.

 INT.1SG DEF die-OPT-1SG.S child-POSS.1SG live-AOR.3SG.S

 'I shall die, my child shall live.' (North: Taz, AAI_1973_Okyle_flk.057)
- (28) *Katsat*, *saja-l illä sɔ:r-ät!* grandson eye-Poss.2sG down bind-IMP.2sG.0 'Boy, blindfold your eyes!' (North: Taz, NN_197X_YoungBoy_flk.044)
- (29) Mat or-qil-sa-p ınnä čatti-sa-p qɔːsi-l'
 1SG force-MULO-PST-1SG.O up throw-PST-1SG.O crust-ADJZ
 anta-qäk.
 boat-ILL.1SG
 'I grabbed him and threw him into my boat made of bark.'
 (North: Taz, BEP_1973_IchaAndNenets_flk.012)

Furthermore, Kuznecova et al. (1980: 187) describe that additionally a pronoun might be used, and indeed double marking is attested for all types of possession, but far less frequent (10 occurrences) than head marking. The following examples show this for body parts (30) and ownership (31).

- (30) Man untal-tenta-p tat ola-mti?

 1SG look.for.lice-INFER.FUT-1SG.O 2SG.GEN head-ACC.2SG

 'When shall I search your head for lice?'

 (North: Taz, BVP_1973_East_flk.014)
- (31) Tan man kapkat-qäk tu:tira-nti.
 2SG 1SG.GEN trap-ILL.1SG get-2SG.S
 'You fell into my trap.' (North: Taz, MIV_1977_Icha_flk.011)

The use of only the genitive pronoun is not attested in the data for first and second person, as is expected from the aforementioned descriptions in the grammar by Kuznecova et al. (1980).

For third-person possessors, the situation allegedly differs: Kuznecova et al. (1980: 187, 288) state that only dependent marking is used, double and head marking is ungrammatical. The data in this study shows that dependent marking is very rarely used in these cases: there are two occurrences of the expression of ownership with merely the genitive pronoun (32), but there are no cases for inalienable possessions.

(32) Təp-a-n mɔːt-tɨ tü-ŋɔː-qı šittɨ qum-oː-qı.
3SG-EP-GEN tent-ILL come-AOR-3DU.S two person-EP-DU
'There come two people into her house.'
(North: Taz, BEP_1973_Fat1_flk.oo3)

Contrary to the grammatical description offered, inalienable possession for third person is solely head marked with just the possessive suffix as shown for kinship (33) and body parts (34). Ownership (35) is also more frequently marked this way (29 occurrences).

- (33) Ni:ni i:ja-ti or-i-m-minti. then child-poss.3sG force-EP-TRL-PST.INFER.3sG.s 'His son has grown up.' (North: Taz, AAI_1973_Okyle_flk.043)
- Ünkilsa-ti (34)ukort kuttar ez-si nılči-n ear-poss.3sg earlier how be-PST.3SG.S such-ADV ej er-na. and be-AOR.3SG.S 'Her ears were again there where they had been earlier.' (North: Taz, AVA_1973_Ichakicha_flk.072)
- (35) Iti-t inni-m-t
 evening-LOC.ADV bow-ACC-POSS.3SG

 äti-ti-ti.
 lay.arrow.at.bowstring-INFER-3SG.0

 'In the evening he sets an arrow in his bow.'
 (North: Taz, BIV_1941_KonMytyke_flk.019)

Double marking for third-person possessors is not found in the data.

5.2. Central Selkup

Non-lexical possessors in Central Selkup also behave differently with respect to the person of the possessor. First- and second-person possessors are, according to Bekker et al. (1995a: 71), double marked by default. The analysis of the corpus showed that indeed the combination of a genitive pronoun and a possessive suffix on the second part of the construction is widely used (74 occurrences) to mark inalienable (kinship (36) and body parts (37)) and also alienable (38) possession for first and second person.

- (36) Tat mi i:-ut.
 2SG 1DU.GEN son-POSS.1PL
 'You are our son.' (Central: Narym, MNS_NN_BullSon_flk.188)
- (38) Tat tol'ž'e-nd-ə konne čanži-gu az 2SG.GEN ski-OBL.POSS.2SG-INS upwards go.out-INF NEG tan-wa-k. know-AOR-1SG.S
 'I cannot go up with your skis.'
 (Central: Narym, MNS_1984_BrotherSister_flk.045)

Head marking is also accounted for in 74 occurrences; for kinship terms (39) this marking strategy is even the most frequently used (over 45%), but body parts (40) and ownership (41) are frequently only head marked as well.

- (39) Amba-ut m'iyenit čenča [...]
 mother-poss.ipl ipl.dat say.3sg.s
 'Our mother tells us [...]'
 (Central: Vasyugan, ChDN_1983_MistressOfFire_flk.oo3)
- (40) Kuza-t nebe-l ak-t [...] when-LOC.ADV breast-POSS.2SG mouth-ILL 'If your breast is in my mouth [...]' (Central: Narym, MNS_NN_BullSon_flk.187)
- (41) A tüšše-m qošhatel'.
 but rifle-Poss.1sG bad
 'But my rifle is bad.'
 (Central: Tym, PAV_NN_HowIBearCatch_nar.112)

Even though mentioned by Bekker et al. (1995a: 71) as being unusual, dependent marking with the genitive is indeed also found for all types of possession (34 occurrences) and it is the strategy used most often for alienable possession (42), though for inalienable possession it is used very rarely.

(42) M'i tedomi-p ab-a-l-de.

1PL.GEN thing-ACC burn-EP-RES-3SG.O

'She is going to burn our stuff.'

(Central: Vasyugan, ChDN_1983_MistressOfFire_flk.005)

As with lexical possessors, the marking with the adessive is rarely used outside of predicate possession (only 8 occurrences for adessive possessors in attributive possession). The use of only the adessive pronoun is, at least in the data set, reserved for alienable possession (43), while inalienable possession (44) is additionally marked with a possessive suffix; the use of the possessive suffix was described as facultative by Bekker et al. (1980: 82).

- (43) Ma-nan tüšše swa e-za.

 1SG-ADE rifle good be-PST.3SG.S

 'My rifle was good.'

 (Central: Tym, PAV_NN_HowIBearCatch_nar.113)
- (44) Ma-nan aǯa-m quː-mba.

 1SG-ADE father-POSS.1SG die-PST.REP.3SG.S

 'My father had already died.'

 (Central: Narym, SAI_1984_StoryAboutLife_nar.005)

Bekker et al. (1995a: 80) also make statements about the third-person possessor: it is said that for alienable possession only the genitive pronoun is to be used, while with inalienable possession the pronoun is usually paired with the possessive suffix of the according person. In the data, however, head marking is in the vast majority of cases attested (89% in total) for all types of possession with a third-person possessor, i.e. there is no sign of an alienability split (see kinship (45), body parts (46) and also with ownership (47)).

- (45) Tɨmn'a-d oqo-nči-la [...] brother-poss.3sG ask-IPFV-OPT.3sG.s

 'His brother asked [...]' (Central: Tym, JIF_1968_Kamacha_flk.012)
- (46) Tab pah-e pargi-m-de mal koro-mba-d. 3SG knife-INS stomach-ACC-POSS.3SG separately cut-PST.REP-3SG.O 'He cut his belly open with a knife.' (Central: Vasyugan, ChDN_1983_Nikita_flk.044)

(47) Poqqo-qinti mukka-di-l'čə.
net-LOC.POSS.3SG press-TR-INT.PFV.3SG.S
'He puts him into his net.'
(Central: Vasyugan, ChDN_1983_ItjasTown_flk.009)

The second most used strategy which is far less used than head marking in the data is, again for all types of possession, dependent marking, i.e. only with the pronoun in the genitive, as shown here for kinship (48) and the expression of ownership (49). The latter one is expected from the grammatical description quoted before, but the marking of inalienable possession on the possessor alone, not the possessed, is not expected in Bekker et al. (1995a).

- (48) [...] ku qwan-ni-mba:-det n'a:b-la tab-i-t where go.away-tr-hab-3pl duck-pl 3sg-ep-gen čemn'a-lika-p. brother-dim-acc '[...] where the wild ducks had taken her brother.' (Central: Tym, TTD_1964_WildDucks_flk.019)
- (49) Ög mannö-mbe:-d täb-ö-t porg!
 NEG.IMP look-HAB-IMP.2SG.S 3SG-EP-GEN fur.coat
 'Don't look at his coat!'
 (Central: Tym, KAO_1912_SmartPeople_trans.010)

Double marking with the genitive pronoun and the possessive suffix is very rarely attested in the data set for a third-person possessor, but if it is used, then it is mostly for kinship terms (50).

(50) Nača-t tab-ə-t n'ewe:sta-d warke-špa. there-LOC.ADV 3SG-EP-GEN bride-POSS.3SG live-IPFV.3SG.S 'His bride lived there.' (Central: Tym, TTD_1964_Frog_flk.010)

Adessive pronouns combined with a possessive suffix are used only for inalienable possession (51), but without the possessive suffix the picture is more ambiguous, as there are also examples for body parts (52) and ownership (53).

(51) Tab-i-nnan fa paja-d šandɛ ku-mba.
he-ep-ade good woman-poss.3sg young die-pst.rep.3sg.s
'His beautiful wife died young.'
(Central: Vasyugan, ChDN_1983_HerosDaughter_flk.002)

- (52)Tab-la haže-špa-det ku-la-p huru-la-p person-PL-ACC wild.animal-PL-ACC sting-IPFV-3PL 3SG-PL tab-ε-nan i-r-i-lža-t kap. blood take-FRQ-EP-INT.PFV-3SG.O 3SG-EP-ADE 'They bite people, animals, suck their blood.' (Central: Narym, KIA_2014_ItjaKet_trans.138)
- (53) Tab tab-i-nnan nodik i-mba-d. 3SG 3SG-EP-ADE sterlet take-PST.REP-3SG.O 'He took his sterlet [Acipenser ruthenus].' (Central: Vasyugan, ChDN_1983_Nikita_flk.029)

5.3. South Selkup

For South Selkup, the same statements are made as for Central Selkup: first- and second-person possession should be double marked, dependent marking is not common (Bekker et al. 1995a: 71). Putting the corpus data to a test shows that, despite the claims, the most widely used strategy is head marking (112 occurrences) as exemplified here for kinship (54), body parts (55) and ownership (56).

- (54) *Me pal'd'u-z-ot qottija-m-ni*.

 1PL go-PST-1PL grandmother-POSS.1SG-DAT

 'We went to my grandmother.'

 (South: Ket, KMS_1966_TwoSisters_flk.086)
- (55) Ol'o-l' nano warsapa-ŋ as je-ŋ.
 head-poss.2sg then shaggy-ADV NEG be-3sg.s
 'Your head is not shaggy.'
 (South: Middle Ob, PMP_1961_ForestWoman_flk.153)
- (56) *I labo-m töt-qan qala.*and oar-Poss.isG shit-Loc stay.3sG.s
 'And my oar remains stuck in the shit.'
 (South: Ket, TFF_1967_ItjaAldigaScale_flk.o31)

Double marking with the genitive pronoun and the corresponding possessive suffix is the second most used strategy. It is mostly used to mark inalienable possession (53 occurrences, see 57); alienable possession is not often marked that way (7 occurrences).

(57) Tan eze-l qo-u-mba-n. 2SG.GEN father-POSS.2SG rich-be-HAB-3SG.S 'Your father is rich.' (South: Middle Ob, PMP_1961_Fairytale_flk.029)

Dependent marking with the genitive pronoun is, as also stated by Bekker et al. (1995a: 71), not often found in the data (21 occurrences), but used for all types of possession; an example of the marking of ownership is shown in (58).

(58) Mat ma:t-qit warga.

1SG.GEN house-LOC live.3SG.S

'He lives in my house.' (South: Ket, TET 1979 TheHaresHouse flk.019)

However, what is more often used in South Selkup is the marking with the adessive pronoun (53 occurrences), which appears in two forms in South Selkup dialects: with just the adessive suffix *-nan* and with an additional adjective ending *-nan-i*. Especially the latter form is often used in combination with a possessive suffix to mark kin relationships (59); without the suffix it is rarely used. The plain adessive pronoun is, as in Central Selkup, seldom used with or without an accompanying possessive suffix, but there are some occurrences for all types of possession, e.g. for ownership as in (60).

- (59) Man-na:n-i i:-m pe:ge.
 1SG-ADE-ADJ son-POSS.1SG hazel.grouse
 'My son is a hazel grouse.'
 (South: Middle Ob, SEV_1980_HazelGrouse_flk.042)
- (60) Nännɨ tat iː-ča-l meŋ-nan soː kündä qorrä-m. then 2SG take-FUT-2SG.O 1SG-ADE good horse stallion-ACC 'Then you will take my good stallion.' (South: Ket, AGS_1968_FairytaleSnake_flk.o57)

For third-person possessors, the claim by Bekker et al. (1995a: 80) is that alienable possession is marked with only the genitive pronoun, while inalienable possession is double marked with the pronoun and possessive suffix. But as for North and Central Selkup, most possessive constructions are only head marked with the possessive suffix: examples for kinship (61), body parts (62) and ownership (63) are given.

(61) Paja-la-t as wesa-q-wa-t.
old.woman-PL-POSS.3PL NEG get.up-ITER-AOR-3PL
'Their women do not get up.'
(South: Ket, KKN_1971_FiveCarpBrothers_flk.080)

- (62) I:t'a wanč'ə-m ora-nnə-t olo-u-n-tə.
 Itja sheefish-ACC hold-AOR-3SG.O head-EP-ACC-POSS.3SG
 'Itja grabs the sheefish on its head.'
 (South: Chaya, NN_1879_Iitja_flk.027)
- (63) *Nu* pongi-la-m-t qwädi-t.
 now net-PL-ACC-POSS.3SG leave-3SG.0
 'Now he places his nets.'
 (South: Middle Ob, PMP_1967_AboutItja_flk.028)

With a large margin in terms of frequency, double marking with the genitive pronoun and possessive suffix is the second-most used strategy, again attested for all types of possession, be it inalienable (64) or alienable (65).

- (64) [...] täb-i-n n'äryu-mbədi wando-yindi [...] 3SG-EP-GEN redden-PTCP.PST face-ILL.POSS.3SG '[...] at his red face [...]' (South: Ket, KMS_1967_Antosja_nar.o3o)
- (65) Täp-a-n ma:ki-t ä-sa-n piwu-pti-mbiti
 3SG-EP-GEN stick-POSS.3SG be-PST-3SG.S entangle-CAUS-PTCP.PST
 t'ümbu pata-j n'ütš-se.
 long green-ADJZ grass-INS
 'His stick was entangled in the long green grass.'
 (South: Ket, MMP_1964_Lgov_trans .129)

The marking with only the genitive pronoun is rarely used. Also, the adessive pronoun is, as stated previously, very rarely used to mark attributive possession. If accompanied by a possessive suffix, it is used for inalienable (66) and alienable possession, while if it appears without a possessive suffix, it is used for only the latter category (67).

- (66) Täb-ə-sta-yə-nan i-ttə ne-t warya-n
 3SG-EP-CR-DU-ADE SON-POSS.3DU daughter-POSS.3DU big-ADV
 azu-ba-ye.
 become-PST.REP-3DU.S
 'Their son and daughter grew up.'
 (South: Upper Ob, PVD_1961_FarmAssault_flk.028)
- (67) A tab-u-nan mat-qən qiba iz-t
 but 3SG-EP-ADE house-LOC small son-Poss.3SG
 t'eli-mpa-n.
 give.birth-PST.REP-3SG.S
 'In his house his little son had been born.'
 (South: Middle Ob, PMP_1966_BoyDevil_flk.017)

5.4. Overview of non-lexical possessors in Selkup

While, as shown in Section 4.1, in North Selkup, there were no surprises in the data with regard to the possessive constructions with a lexical possessor, constructions with a non-lexical possessor differ from what was expected from descriptions such as Kuznecova et al. (1980: 187), mostly concerning third-person possessors. Concerning first- and second-person non-lexical possession, the data shows that no matter what kind of possessive relation is expressed, head marking is the most commonly used option with an optional pronoun. For third-person possession, the claim of Kuznecova et al. (1980: 187) that it is marked with only the genitive pronoun and that double and head marking is ungrammatical, presents itself as a statement which only partly holds true: double marking is not attested in the data. However, by far the most frequent – and for inalienable possession the only – option is the marking with solely the possessive suffix attached to the head of the phrase. In Table 9, the findings are summarized, separated for person, type of possession and marking strategy.

Table 9: Frequency of marking strategies for attributive possession with a non-lexical possessor in North Selkup

			*	
Per- son	Type of possession	Dependent marking with genitive pronoun	Double marking with genitive pronoun and possessive suffix	
1	Body parts	_	_	3
	Kinship	-	1	8
	Ownership	_	4	6
2	Body parts	-	3	3
	Kinship	_	1	7
	Ownership	_	1	2
3	Body parts	_	_	16
	Kinship	_	_	55
	Ownership	2	-	29

When looking at non-lexical possessors in Central and South Selkup, the picture is less clear than for North Selkup. One reason for this is simply that there are more marking strategies: the adessive pronoun (the plain adessive pronoun and the one with the additional adjective ending are

combined in Table 11 for clarity) with or without a possessive suffix added to the possessed can additionally be used to express attributive possession.

In Central Selkup, Bekker et al. (1995a: 71) claim that double marking is the default strategy for first- and second-person possessors, but this does not hold true: both head and double marking (with genitive) are the most commonly used strategies; for body parts and ownership with first-person possessors, dependent marking seems to be a widely-used option as well, but the data set is too limited to give a definite answer on the importance of that strategy. For third-person possessors, even though not as widely manifested as in North Selkup, head marking is by far the most extensively used strategy to mark attributive possession in Central Selkup as well. Again, as for North Selkup, this runs contrary to the descriptions which claim that a pronoun (genitive or adessive) has to be used for every type of possession. The findings for the SLC corpus data are summed up in Table 10 for Central Selkup.

Table 10: Frequency of marking strategies for attributive possession with a non-lexical possessor in Central Selkup

Per- son	Type of possession	Dependent marking with genitive pronoun	Double marking with geni- tive pronoun and posses- sive suffix	Dependent marking with adessive pronoun	Double marking with ades- sive pronoun and posses- sive suffix	Head marking with pos- sessive suffix
1	Body parts	11	14	_	2	4
	Kinship	11	40	_	2	43
	Ownership	8	4	2	_	5
2	Body parts	1	2	_	1	5
	Kinship	2	13	_	1	17
	Ownership	1	1	_	_	_
3	Body parts	14	1	4	2	128
	Kinship	15	7	_	1	178
	Ownership	8	3	1	_	126

For South Selkup, the same claim has been made as for Central Selkup: first- and second-person possessors are to be double marked. But the data showed that for these persons combined, head marking is the most prominently used strategy to mark attributive possession, while double marking mainly comes in only second place in terms of frequency.

With regard to the marking of third-person possessors, South Selkup shows the same interesting phenomenon: the corpus data deviates significantly from the grammatical description, although both are based on comparable data. For all types of possession, the majority is marked with only the possessive suffix, while double marking or dependent marking are very low in frequency. The results for South Selkup are shown in Table 11.

Table 11: Frequency of marking strategies for attributive possession with a non-lexical possessor in South Selkup

Per- son	Type of possession	Dependent marking with genitive pronoun	Double marking with geni- tive pronoun and posses- sive suffix	Dependent marking with adessive pronoun	Double marking with ades- sive pronoun and posses- sive suffix	Head marking with pos- sessive suffix
1	Body parts	7	11	4	5	13
	Kinship	2	27	5	12	43
	Ownership	10	6	3	3	11
2	Body parts	1	4	-	-	9
	Kinship	_	11	2	17	22
	Ownership	1	1	-	2	14
3	Body parts	6	8	-	2	119
	Kinship	1	12	-	1	355
	Ownership	4	4	4	1	125

In summary, it can be said that the dialects show differences (e.g. the adessive in Central and South), but they have in common that regardless of person or type of possession, head marking is most frequently used, followed by double marking. The split in first-/second- and third-person possessor pronouns does not seem to be necessary as they do not show significantly different behaviors. Still, for all dialects, one has to keep in mind that there are not as many occurrences in the corpus for first and second person as for the third person. This is due to fact that the corpus is mostly compiled from folklore texts, i.e. texts that are told about another person, and therefore evidence is lacking for first and second possessors. This is especially true when trying to detect if alienability is a key factor in choosing a marking strategy. For example, the data presented in Table 10 for Central Selkup and also in Table 11 for South Selkup suggests that ownership for first-person possessors

has a tendency to be marked only with a genitive pronoun, but more occurrences would be needed to be sure of that. As of now, there is no evidence that the type of possession plays a role in picking a marking strategy.

It can therefore be stated that Selkup fits rather well into the Samoyedic framework in which possessive suffixes are to be used and pronouns can optionally be used, even if the grammars suggested differences. Obviously, there are exceptions, but the use of possessive suffixes in Selkup is very frequent.

6. Conclusion

This study is based on a closed data set and the absolute numbers presented in Tables 6–11 obviously only hold true for this specific corpus, but the corpus is big enough to give some ideas about the quantity of marking strategies in general and also shows that some are used extensively, even though grammatical descriptions deemed them to be ungrammatical, while others are less frequent than suggested.

For lexical possessors, the most frequently used marking strategy is cross-dialectal dependent marking: The genitive is attached to the possessor. In most of these cases, the possessed is not marked with a possessive suffix, except in South Selkup, where kinship terms are rather often double marked.

Non-lexical first- and second-person possessors are in a large majority only head marked: a possessive suffix is attached to the possessed, while double marking with the genitive pronoun is the second-most used marking, except for marking ownership in Central and South Selkup where the second-most used marking is dependent marking with the genitive pronoun, but the data set is rather small for that. The most interesting findings concern third-person possessors, because the study could show that these are also predominantly head marked and that the use of pronouns is of no importance in the marking regardless of the type of possession, even though it has been claimed for both North (Kuznecova et al. 1980: 187) and for Central and South Selkup (Bekker et al. 1995a: 80) that dependent marking is the most used strategy. The data presented here shows that it is not necessary to split first-, second- and third-person possessors, as they behave the same.

Adessive marking is used in Central and South Selkup for lexical and non-lexical possessors, but very rarely. It takes a larger role in marking predicative possession, which is not part of this study.

In context with the other Samoyedic languages, the Selkup data suggest that they all exhibit nearly the same features: dependent marking for

lexical possessors, head marking for non-lexical possessors; an alienability split cannot be detected for any Samoyedic language. If one looks not only at the Samoyedic languages but at the Uralic languages as a whole, Koptjevskaja-Tamm (2003: 642) showed for e.g. Mari that the syntactic function is of importance when picking a marking strategy, while in Mordvin the definiteness of a referent is taken into account. The Samoyedic languages in general and also Selkup show no indication that these factors are crucial, at least in the attributive constructions presented here.³ Altogether, Selkup's features are not too surprising and fit with the typological overviews as presented in Koptjevskaja-Tamm (2003) as well as Nichols and Bickel (2013) with regard to lexical possessors well.

Overall, the evaluation of the corpus has shown that even though attributive possession is a topic rather well studied for Selkup, there are still interesting finds and also still open questions that need further research. There is also a need to incorporate more data, especially for North Selkup in general and for first and second possessors in Central and South dialects, in order to get a broader picture.

Non-standard abbreviations used in glosses

ADE	adessive	INFER	inferential
ADJZ	adjectivizer	INT	intensifier
AOR	aorist	ITER	iterative
CR	connective-reciprocal	MULO	multiobjective derivation
CVB	converb	O	objective conjugation
DIM	diminutive	OPT	optative
EP	epenthetic vowel	REP	reportative mood
FRQ	frequentative	S	subjective conjugation
HAB	habituative	TRL	translative
ILL	illative		

References

Behnke, Anja & Budzisch, Josefina. 2021. Selkup Language Corpus (Working Papers in Corpus Linguistics and Digital Technologies: Analyses and Methodology 6). Szeged: Department of Finno-Ugric Studies. https://doi.org/10.14232/wpcl.2021.6

Bekker, Erika & Alitkina, Larisa & Bykonja, Valentina & Il'jašenko, Irina. 1995a. *Morfologija sel'kupskogo jazyka. Južnye dialekty. Čast' 1.* Tomsk.

^{3.} See e.g. Ovsjannikova (2020) for nominative and oblique (genitive) possessors in Enets. The first type is mostly used in predicative possession (and to some extend in "describing the state of the possessor's body parts"; Ovsjannikova 2020: 93).

- BEKKER, ERIKA & ALITKINA, LARISA & BYKONJA, VALENTINA & IL'JAŠENKO, IRINA. 1995b. *Morfologija sel'kupskogo jazyka. Južnye dialekty. Čast'* 2. Tomsk.
- Budzisch, Josefina. 2015. Possession in Southern Selkup. *Tomsk Journal of Linguistics and Anthropology* 4(10). 45–50.
- BUDZISCH, JOSEFINA. 2017. On the non-possessive use of possessive suffixes in Central and Southern Selkup. *Ural-Altaic Studies Scientific Journal* 25(2), 58–66.
- BUDZISCH, JOSEFINA. 2021. Definitheit im Selkupischen (Studia uralo-altaica 55). Szeged: Finnisch-Ugrisches Institut.
- BUDZISCH, JOSEFINA & HARDER, ANJA & WAGNER-NAGY, BEÁTA. 2019. *Selkup Language Corpus (SLC)*. Archived in Hamburger Zentrum für Sprachkorpora. Version 1.0.0. Publication date 2019-02-08. http://hdl.handle.net/11022/0000-0007-D009-4.
- Bykonja, Valentina & Kuznecova, Nadežda & Maksimova, Natal'ja. 2005. Sel'kupsko-russkij dialektnyj slovar'. Tomsk: Izdatel'stvo Tomskogo gosudarstvennogo pedagogičeskogo universiteta.
- GLUŠKOV, SERGEJ & BAJDAK, ALEKSANDRA & MAKSIMOVA, NATAL'JA. 2013. Dialekty sel'kupskogo jazyka. In Tučkova, Natal'ja & Gluškov, Sergej & Košeleva, Elena & Golovnëv, Andrej & Bajdak, Alexandra & Maksimova, Natal'ja (eds.), Sel'kupy. Očerki tradicionnoj kul'tury i sel'kupskogo jazyka, 49–63. Tomsk: Izdatel'stvo Tomskogo politechničeskogo universiteta.
- HAIMAN, JOHN. 1983. Iconic and economic motivation. Language 59. 781-819.
- HASPELMATH, MARTIN. 2017. Explaining alienability contrasts in adpossessive constructions: Predictability vs. iconicity. *Zeitschrift für Sprachwissenschaft* 36(2). 193–231. https://doi.org/10.1515/zfs-2017-0009
- HELIMSKI, EUGEN 1997. *Die matorische Sprache* (Studia uralo-altaica 41). Szeged: Finnisch-Ugrisches Institut.
- KIM, ALEXANDRA. 1985. Ausdrucksweisen der Possessivfügungen im Samojedischen. *Linguistics* 1. 50.
- KIM-MALONEY, ALEXANDRA & KOVYLIN, SERGEJ. 2015. Taksonomija jazykovych sredstv vyraženija posessivnosti v sel'kupskom jazyke. *Tomsk Journal of Linguistics and Anthropology* 4(10). 36–44.
- KÖNIG, EKKEHARD. 2001. Internal and external possessors. In Haspelmath, Martin & König, Ekkehard & Oesterreicher Wulf, & Raible, Wolfgang (eds.), Language typology and language universals (HSK 20.2), 970–978. Berlin: de Gruyter. https://doi.org/10.1515/9783110171549.2
- KOPTJEVSKAJA-TAMM, MARIA. 2001. Adnominal possession. In Haspelmath, Martin & König, Ekkehard & Oesterreicher Wulf, & Raible, Wolfgang (eds.), Language typology and language universals (HSK 20.2), 960–970. Berlin: de Gruyter. https://doi.org/10.1515/9783110171549.2
- KOPTJEVSKAJA-TAMM, MARIA. 2003. Possessive noun phrases in the languages of Europe. In Plank, Frans (ed.), *Noun phrase structure in the languages of Europe*, 621–722. Berlin: Mouton de Gruyter.
- KÖRTVÉLY, ERIKA. 2010. On the function of possessive suffixes in Tundra Nenets: Possession and semantic-pragmatic definiteness. *Finnisch-Ugrische Mitteilungen* 32/33. 321–343.

- KÜNNAP, AGO. 1999a. Enets (Languages of the World 186). München: Lincom.
- KÜNNAP, AGO. 1999b. Kamass (Languages of the World 185). München: Lincom.
- Kuper, Shimon. 1986. Mesto ketskogo dialekta v sisteme sel'kupskogo jazyka. In Nadeljaev, V. (ed.), *Fonetika jazykov Sibiri i sopredel'nych regionov*, 103–106. Novosibirsk: Nauka.
- Kuznecova, Ariadna & Helimski, Eugen & Gruškina, Elena. 1980. *Očerki po sel'kupskom jazyku. Tazovskij dialekt.* Tom 1. Moskva: Izdatel'stvo Moskovskogo universiteta.
- NICHOLS, JOHANNA. 1986. Head-marking and dependent-marking grammar. *Language* 62. 56–119.
- NICHOLS, JOHANNA & BICKEL, BALTHASAR. 2013. Locus of marking in possessive noun phrases. In Dryer, Matthew & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (http://wals.info/chapter/24) (Accessed 2021-01-13.)
- NIKOLAEVA, IRINA. 2014. *A grammar of Tundra Nenets* (Mouton Grammar Library 65). Berlin: De Gruyter. https://doi.org/10.1515/9783110320640
- Orlova, Svetlana. 2018. Denominal *l'*-forms in Northern Selkup: syntax, morphology and semantics. *Tomsk Journal of Linguistics and Anthropology* 3(21). 31–40. https://doi.org/10.23951/2307-6119-2018-3-31-40
- OVSJANNIKOVA, MARIA. 2020. Oblique and nominative nominal possessors in Forest Enets. *Eesti ja soome-ugri keeleteaduse ajakiri | Journal of Estonian and Finno-Ugric Linguistics* 11. 57–98. https://doi.org/10.12697/jeful.2020.11.2.03
- Sebestyén, Irene. 1957. Die possessiven Fügungen im samojedischen und das Problem des uralischen Genitivs (I.). *Acta Linguistica Academiae Scientiarum Hungaricae* 7(1/2). 41–77.
- SIEGL, FLORIAN. 2013. Materials on Forest Enets, an indigenous language of Northern Siberia (Memoires de la Société Finno-Ougrienne 267). Helsinki: Finno-Ugrian Society.
- Tauli, Valter. 1966. Structural tendencies in Uralic languages (Uralic and Altaic series 17). The Hague: Mouton.
- VOROBEVA, VICTORIA & NOVITSKAYA, IRINA & GIRFANOVA, KSENIA & VESNIN, VITALIJ. 2017. Adnominal possessive constructions in Narym, Vasjugan and Middle-Ob dialects of Selkup. *Linguistica Uralica* 53. 54–64. https://doi.org/10.3176/lu.2017.1.05
- WAGNER-NAGY, BEÁTA. 2014. Possessive constructions in Nganasan. Tomsk Journal of Linguistics and Anthropology 1(3). 76-82.
- Wagner-Nagy, Beáta. 2019. *A grammar of Nganasan* (Grammars and Language Sketches of the World's Languages 6). Leiden: Brill. https://doi.org/10.1163/9789004382763
- Winkler, Heinrich. 1913. Samojedisch und finnisch. Zweite Mitteilung. Finnisch-ugrische Forschungen 13. 120–178.
- ZAYZON, RÉKA. 2015. Observations on non-possessive usages of personal markers (possessive suffixes) in Nganasan. Eesti ja soome-ugri keeleteaduse ajakiri / Journal of Estonian and Finno-Ugric Linguistics 6(2). 259–278.