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**THREE *-EN* IN NORTHERN KHANTY: 2SG POSSESSIVE, SALIENT,
AND ANAPHORIC ARTICLES²**

This paper shows that Northern Khanty *-en* [POSS.2SG] is used in several contexts beyond the proper possessive ones. It behaves quite differently in anaphoric uses and in uses in commands. There are at least three distinct markers with the exponent *-en*. First, the usual 2SG possessive *-en* which competes with other possessives and depends in number features on the addressee—if the addressee is plural, the marker is accordingly *-ən* [POSS.2NSG]. Semantically, it corresponds to Karvovskaya's (2018) MinSpec operator. Secondly, the salient article *-en*. It is used with unique objects in commands. It states of a referent of an NP that the referent stands in a SALIENT_TO relation to the addressee. Should the addressee be plural, the exponent is accordingly *-ən* [POSS.2NSG]. Thirdly, the anaphoric article *-en*, used with anaphorically accessible unique referents. Semantically it is equivalent to Schwarz's (2009) strong definite article.

Keywords: possessive marker, Northern Khanty, definite article, anaphoric article, salient article, semantics

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1.Introduction

This paper deals with the 2SG possessive marker *-en/-an* of Northern Khanty as spoken in the Kazym village of the Khanty-Mansi Autonomous Okrug. It shows that, unlike the other possessive markers in and outside Northern Khanty, the 2SG possessive is used in several contexts which I call “extended” and which are characteristic of definite articles (König 2018).

It also shows that the marker in question is still not quite like the definite article in English, for example, and that it is actually three distinct markers (none of which are like the English definite article).

Section 1 overviews the paper and presents the methodology for data collection (section 1.1), abbreviations (section 1.2), the Northern Khanty possessive system (section 1.3), and the literature regarding the 2SG possessive in other dialects of Northern Khanty (section 1.4).

Section 2 gives a brief overview of the semantics of possessive markers and definite articles in the typological literature, setting the background for the discussion of the 2SG possessive.

Section 3 presents the main uses of the 2SG possessive marker.

An important constraint on the distribution of the marker is that whenever a “proper” possessive might be used instead of the 2SG possessive it will be the preferred strategy (section 3.1).

As shown in section 3.2, the 2SG possessive is used with anaphorically accessible referents, but it is not used with anaphorically inaccessible unique referents in indicative sentences. In these contexts, the 2SG possessive is used irrespective of whether the addressee is plural or singular—that is, it does not agree in number with the addressee.

In commands, it is used with anaphorically inaccessible unique referents (section 3.3). In these contexts, it does agree in number with the addressee: when the addressee is plural, the marker used is *-ən* [POSS.2NSG].

In both uses the marker carries uniqueness, familiarity, and existence inferences.

Section 4 presents the analysis. After a discussion of how Northern Khanty possessives fit into the picture of pronoun semantics along the lines of Kaplan (1989) in section 4.1, I motivate the distinction between three markers with the exponent *-en* (section 4.1).

The first one is a proper possessive marker that competes with other possessives and agrees in number with the addressee (section 4.2.1).

The second is a salient article which, like the first, denotes a relation between the NP referent and the addressee, but unlike the first one requires the relation to be a SALIENT_TO relation (section 4.2.2).

The third is an anaphoric article (better known as the strong article in the literature, *e.g.*, Schwarz 2009) presented in section 4.2.3.

Section 5 concludes the paper and presents directions for future research.

1.1. Methodology

The data were collected during elicitation sessions with speakers of the Kazym dialect of Northern Khanty residing in the Kazym village of the Khanty-Mansi Autonomous Okrug in the Russian Federation. Northern Khanty is a language of the West Khanty subgroup of the Khantyic group of the Finno-Ugric family.

The sessions took place in two field trips to Kazym in the summers of 2018 and 2019. Some additional data were collected with two speakers via Skype and Viber in the spring of 2020.

Elicitation mainly proceeded as a translation task. The speakers were presented with a Russian stimulus with a context and were asked to translate it to Northern Khanty. Then, several other translations with different forms were presented and the speakers provided their acceptability judgements. Sometimes, the speakers were also asked to comment on the differences between two translations.

1.2. Abbreviations

| | | | |
|--------|---|------|-------------------------|
| 1 | first person | LOC | locative |
| 2 | second person | NEG | negation |
| 3 | third person | NFIN | general non-finite form |
| 3SG>SG | a third person singular subject is acting on a singular direct object | NPST | non-past |
| ADD | additive particle | NSG | non-singular number |
| CAUS | causative | OBJ | object conjugation |
| DAT | dative | OPT | optative |
| DEF | definite article | ORD | ordinal numeral |
| DU | dual number | PASS | passive |
| EMPH | emphatic particle | PL | plural number |

| | | | |
|-------|---------------|------|-----------------|
| FREQ | frequentative | POSS | possessive |
| IMP | imperative | PST | past tense |
| INDEF | indefinite | SG | singular number |

1.3.Northern Khanty possessive system

The system of suffixes marking possessive relations in Northern Khanty includes markers for combinations of three persons and three numbers of the possessor (singular, dual, plural) and three numbers of the possessee, resulting in 27 markers presented in Table 1 below.

There is, however, a certain degree of syncretism. For instance, the suffix *-ən* functions as a POSS.2NSG marker used for dual and plural second person possessors and as a POSS.3DU marker used for dual third person possessors.

The number marker of the possessed noun undergoes an allomorphic alternation when a possessive suffix follows it. The non-possessed number suffixes are *-ηən* for dual and *-ət* for plural and the possessed are *-ηəl* and *-λ*, respectively.

Combinations of a non-possessed number marker and a possessive are forbidden: **amp-ət-en* [dog-PL-POSS.2SG].

| | SG | DU | PL |
|-----|------------------------|--|-------------------------|
| 1SG | -εm / -əm -POSS.1SG | -ηəl-am -DU-POSS.1SG | -λ-am -PL-POSS.1SG |
| 2SG | -en -POSS.2SG | -ηəl-an -DU-POSS.2SG | -λ-an -PL-POSS.2SG |
| 3SG | -əλ/-eλ -POSS.3SG | -ηəl-aλ / -ηaλ -DU-POSS.3SG / -DU[POSS.3SG] | -λ-aλ -PL-POSS.3SG |
| 1DU | -εmən -POSS.1DU | -ηəl-amən -DU-POSS.1DU | -λ-amən -PL-POSS.1DU |
| 2DU | -ən -POSS.2NSG | -ηəl-an -DU-POSS.2NSG | -λ-ən -PL-POSS.2NSG |
| 3DU | -ən -POSS.3DU | -ηəl-an -DU-POSS.3DU | -λ-ən -PL-POSS.3DU |
| 1PL | -ew -POSS.1PL | -ηəl-aw -DU-POSS.1PL | -λ-aw -PL-POSS.1PL |

| | | | |
|-----|-------------------|--------------------------|------------------------|
| 2PL | -ən -POSS.2NSG | -ηəλ-an -DU-POSS.2NSG | -λ-ən -PL-POSS.2NSG |
| 3PL | -eλ -POSS.3PL | -ηəλ-aλ -DU-POSS.3PL | -λ-aλ -PL-POSS.3PL |

Table 1. The system of Northern Khanty possessive markers (Kazym dialect, field data)

1.4.2SG possessive in other dialects

The 2SG possessive has not been discussed in the literature on the Kazym dialect. In a recent grammar sketch of the dialect (Kaksin 2010), there is no special reference to the marker.

The marker has been discussed, however, for two other dialects: the Obdorsk dialect and the Tegi dialect. Nikolaeva (1999) dedicates some space to the discussion of the 2SG possessive in the Obdorsk dialect (which she calls Ostyak) of Northern Khanty in her grammar and in a general paper on possessives in Uralic (Nikolaeva 2003).

She shows that the possessives of Obdorsk Khanty are much more frequent in the corpus compared to English and are in most cases used to signal that an associative relation is present between the possessor and the NP referent. In (1) the car is pointed out to the addressee and is thus associated with them: “because I am talking to you about it” (Nikolaeva 1999: 84). In (2) there is a situational relationship between the place and the subject which “the speaker chooses to emphasize” (Ibid.: 83). According to Nikolaeva, in these examples the possessive marker can be omitted without affecting the at-issue content of the sentences.

(1) Obdorsk dialect of Northern Khanty

wanta #(**tām**) **mašinaj-en** jowra mǎnəs³
 see this car-2SG awry went.3SG

‘Look, that car (lit. that your car) went awry.’ (adapted from Nikolaeva 2003: (15a))

(2) ma **iši** **taxa:j-e:m-na** il ko:ri-s-ə-m
 me same place-1SG-LOC down fall-PAST-EP-1SG

‘I fell down in the same place (lit.: at the same my place).’ (Nikolaeva 1999: 83)

Nikolaeva claims that the 2SG possessive indicates that the speaker somehow pragmatically associates the addressee with the referent of the corresponding noun (Nikolaeva 2003: §3.1). This is said to be the reason why the marker often figures with objects in commands (and, indeed, we observe the same behavior of the Kazym marker, see section 3.3).

³ The transliteration and the glosses in this section are retained from the original works.

However, the “associative” account seems to be too vague and unrestrictive. For instance, it is not clear why the 1PL possessive marker is not used in (1) because the speaker and the addressee are talking about that car together.

Regardless of whether the associative account is the correct understanding of the Obdorsk dialect data, it is clear that the Kazym marker is quite different. As section 3 shows, it is obligatory in several contexts and it bears certain inferences reminiscent of definite articles—both these features are explicitly denied by Nikolaeva for the Obdorsk marker.

In Kashkin’s field report (2010) on the 2SG possessive in the Tegi dialect of Khanty we find again that the data are quite different from those of the Kazym dialect. Kashkin reports that only the 3SG possessive is used in anaphoric contexts and the 2SG possessive is infelicitous in this function. Furthermore, in his examples with commands the 2SG possessive marking is optional.

- (3) **ɔv-(en)** pŭnš-e
 door-POSS.2SG open-IMP.OBJ
 ‘Open the door.’ (adapted from Kashkin 2010: (5))

As shown in section 3, the situation in Kazym is exactly the opposite: the 2SG possessive is used for anaphorically accessible referents and is obligatory in commands. In Tegi, 2SG possessive marking is also optional as in Obdorsk and unlike Kazym.

2. Typological background

2.1. Possessive markers

Karvovskaya (2018) investigates the semantics of adnominal possessive constructions cross-linguistically. She distinguishes two main types of strategies of possessive marking: idiosyncratic and non-idiosyncratic. (This roughly corresponds to the traditional “inalienable vs. alienable” distinction, see (*ibid.*: §1.2.2) on why this distinction is not workable.)

An idiosyncratic strategy is necessarily semantically marked or restricted. It is “predetermined to mark a limited set of relations that are systematically derived from the semantics of the possessed noun” (*ibid.*: 24).

A non-idiosyncratic strategy is not semantically restricted and can pick up virtually any relation from the context (see the detailed discussion in *ibid.*: §2).

The two strategies are illustrated in (4), respectively.

- (4) Adyghe (< Northwest Caucasian)
 a. s-šha
 1SG-head
 ‘my head’

b. s-jə-ŝha

1SG-POSS-head

‘my head’ (said by a zoologist about a dog’s head) (Gorbunova 2009: 153–154 cited after Karvovskaya 2018: 24)

Karvovskaya analyzes the two strategies as involving two distinct operators. The idiosyncratic strategy corresponds to the MaxSpec_i operator presented in (5) with the standard formal semantic notation (Heim, Kratzer 1998). The non-idiosyncratic strategy corresponds to MinSpec_i (6).

- (5) $[[\text{MaxSpec}_i]]^g = \lambda P \lambda x \lambda y. g(i)(x, y) \ \& \ P(y)$ defined iff $g(i)$ is a stereotypical P -based relation
 MaxSpec_i is a function that takes the intension of a noun P , an individual x , and an individual y and states that x and y stand in the relation assigned to the index i by the assignment g and that y is in the extension of P , iff the relation assigned to the index i by the assignment g is based on the intension of the noun P , undefined otherwise. (adapted from Karvovskaya 2018: 62)
- (6) $[[\text{MinSpec}_i]]^g = \lambda P \lambda x \lambda y. g(i)(x, y) \ \& \ P(y)$ where $g(i)$ is a relation
 MinSpec_i is a function that takes the intension of a noun P , an individual x , and an individual y and states that x and y stand in the relation assigned to the index i by the assignment g and that y is in the extension of P . (*ibid.*)

The use of index i in [(5) and (6)] captures the intuition that the relation between the possessor and the possessed, encoded by the possessive marker, is sometimes subject to constraints. However, it is not hard-wired in the lexical entry of the possessive marker. In the case of the idiosyncratic strategy, the exact relation depends on the possessed noun. The range of the assignment function g is restricted by the presupposition to stereotypical relations derivable from the intension of the possessed noun. [...] In the case of the non-idiosyncratic strategy, the range of the assignment function g is not restricted (*ibid.*).

While a separate study is needed to see whether the Northern Khanty possessive marking strategies fit this framework, we may note that when a possessive marker is present, the relation that it denotes is usually not restricted to being derived from the semantics of the noun. For example, in (7) the 3SG possessive marker on the church denotes the relation of ‘standing in the same village as the possessor lives in’.

- (7) was'a-jen mǎnɛm-a **cerkow-əλ** wan-əλt-əs-λe
V.-POSS.2SG I-DAT church-POSS.3SG see-CAUS-PST-3SG>SG

‘{Me and Vasya were walking around Kazym village.} Vasya showed me his church.’⁴

⁴ In the examples to follow the context is given in curly brackets { }. The English gloss is given in single quotes ‘’. If the context is inside the single quotes it means that the context was also translated to Northern Khanty, if it’s outside, then it only

Speaker' comment: "it's the church from the village that he lives in".

The field report by Smirnova (2019) on the possessive marking in NPs with internal possessors says that in elicitation data there seems to be a preference for marking relations with more animate possessors such as kinship or body part relations and for not marking relations with less animate possessors such as part-whole (but also author and agent). Clearly, the distribution of the unmarked strategy and the possessive strategy must be subject to further investigation in the field as well as in the corpus.

For our purposes it suffices to note that if the possessor is human, the choice of the relation denoted by the possessive marker is quite unrestricted. Thus, I assume that all Northern Khanty possessive markers have the semantics of MinSpec_i (6) with the respective person-number features built in as presuppositions (which is the usual treatment of pronouns, see Heim, Kratzer 1998: 244).

As shown in section 3 this is, however, not enough to account for the distribution of the 2SG possessive marker.

2.2. Definite articles

König (2018) discusses the typology and the evolution of definite articles. He presents the following grammaticalization path based on the works of his predecessors (8).

- (8) Grammaticalization path of definite articles: forms and uses
- i. demonstrative > strong article > weak article > generic article > specific article
 - ii. exophoric > endophoric (anaphoric/cataphoric) > associative > generic/abstract > specific
- (adapted from König 2018: 171)

A demonstrative is used exophorically (when a referent is accessible outside the text, in the context of use of the marker) and endophorically (when a referent is accessible inside the text, anaphorically or via description, *i.e.* a relative clause or other nominal adjunct). Another characteristic use is contrastive: *Yesterday I bought a book and THIS book I will give to my mother* (*ibid.*: 172). König argues that one can only speak of a transition from a demonstrative to a definite article when this latter use is lost.

The next step on the grammaticalization path involves availability in contexts "of association, of memorizing or of general availability in a universe of discourse [...] It is here we find [...] those cases where the cultural or local context provides a unique referent" (*ibid.*: 173-174).

figured in the Russian stimulus. The hash sign (#) is used to indicate that the intended interpretation is unavailable for this example. The percent sign (%) is used to indicate that the example is unacceptable for some speakers and acceptable for others. The asterisk sign (*) is used to indicate that the example is ungrammatical.

The differences between the two stages is in the availability of marking for unique (in one way or another) referents (the local and global uniqueness uses of articles of Hawkins 1991).

These two stages are manifested in the distinction between strong and weak definite articles found in some Germanic languages and elsewhere (see references in *ibid.*). The distinction can be drawn as follows: “(i) the strong article manifests the situational use, the anaphoric one, [...] and typically also the cataphoric one; (ii) the weak article occurs in associative contexts, in reference to unique entities in the universe of discourse, as well as in generic contexts”.

This distinction is illustrated with data from Standard German where it only surfaces with prepositions. In such cases a fused form (*zur, im, etc.*) is used with unique and generic entities (among others), while the non-fused form (*zu der, in dem, etc.*) is used anaphorically.

(9) and (10) present examples of the weak (fused) form (a), and the strong (non-fused) form (b).

(9) a. Karl geht noch **zur Schule**.

‘Charles still goes to school.’

b. Karl ging **zu der Schule** hin.

‘Charles went to the school building.’

(10) a. Karl ist **im Gefängnis**.

‘Charles is (doing time) in prison.’

b. Karl ist jetzt **in dem Gefängnis**.

‘Charles is now inside the prison.’ (adapted from König 2018: 174)

For a discussion of the further stages of the development of definite articles, the reader is referred to the original paper. For us, it is crucial that there is a clear distinction between strong and weak definite articles and, therefore, it is meaningful to ask which article it is, if the 2SG possessive marker behaves like a definite article.

Note also that the only source of grammaticalization of definite articles discussed in (König 2018) is the demonstrative. Laura Becker (2019) presents a more extensive cross-linguistic investigation of articles. Among definite articles she distinguishes between a definite article proper and an anaphoric article:

(11) Definite article

“A definite article is an article that systematically occurs with anaphoric and contextually unique referents. It may also occur with other types of definite referents. It does not occur with specific [indefinite] and nonspecific referents” (*ibid.*: 70).

(12) Anaphoric article

“An anaphoric article is an article that systematically occurs with anaphoric⁵ referents. It does not occur with spatial deictic and contextually unique referents from the definite domain. It does not occur with specific and nonspecific referents either” (*ibid.*).

These two types closely resemble the weak *vs.* strong distinction (*ibid.*: 242) and in what follows we shall use Becker’s terminology.

Becker briefly touches on the evolution of definite articles from possessives. Here she claims the marker first develops the unique non-anaphoric use and later it is extended to anaphoric cases as well. The following examples illustrate the uses of the Indonesian third person possessive marker *-nya* with locally unique and anaphorically accessible referents, respectively.

(13) Indonesian

kalau mau makan **nasi-nya** di lemari
if want eat rice-DEF in pantry

‘If you want to eat, the rice is in the pantry.’ (Rubin 2010: 107 cited after Becker 2019: 242)

(14) A: jadi gua ntar ketemu dia langsung di salon
so I soon meet her directly in salon
‘So I’m going to meet her directly at the salon.’

B: **salon-nya** di deket rumah?
salon-DEF in near house

‘Is the salon near your house?’ (Rubin 2010: 109 cited after Becker 2019: 242)

In a footnote, Becker points out that the situation found in some Uralic languages is very similar and maybe the possessive markers there are of the same kind (*ibid.*: 170, see the discussion of the Udmurt third person singular marker *-ez* on pages 19–20 of the book).

As shown in section 3, the 2SG possessive is quite different in being used only with anaphoric referents (as long as the uses in indicative sentences are concerned).

3.Primary uses of the 2SG possessive

This section deals with examples of several different primary uses of the 2SG possessive. The marker is also found in a range of more specific contexts. Most notably, it is obligatory with anthroponyms in argument positions and it is possible with question words. In this paper, I focus on the uses with common nouns.

The first group I term “(proper) possessive”. In these examples, the 2SG possessive appears along with the other possessive markers, behaving in some cases quite similarly to the better

⁵ An anaphoric referent is a referent identical to some other referent present in the discourse universe (*Ibid.*: 60), *i.e.* introduced in prior context.

studied possessive pronouns of Germanic, Romance, and Slavic languages, *e.g.* the Russian pronoun *tvoy* ‘your’ or the English *our*. In other cases, a possessive relation can easily be recovered from the example, although we would not expect a possessive marker in European languages in such contexts (these are the unusually frequent associative uses of Nikolaeva’s, see section 1.4).

The other groups, on the other hand, are “extended” in being quite unlike the uses of the more cross-linguistically common possessives.

In the second group—termed “anaphoric uses”—the marker behaves quite like an anaphoric article as discussed in Becker (2019; see also section 2.2). It marks an NP whose referent is anaphorically accessible.

The third group consists of uses of the 2SG possessive in commands. Intuitively, in these examples the (standard) English *your* cannot be added to the translation felicitously and the referent in question is not present in the preceding context. Nevertheless, the Northern Khanty marker is used there.

Crucially, the anaphoric uses and the uses in commands differ from the proper possessive uses in conveying a uniqueness inference (among others) and the two “extended” groups differ in that in commands, the marker still agrees with the addressee in number, while in anaphoric uses it does not.

In each subsection of section 3, a generalization is derived that will be accounted for by the analysis in section 4.

3.1. Proper possessive uses

Example (15) presents the most straightforward proper possessive use. Here the marker clearly contributes the meaning like ‘the cat stands in an ownership relation to the addressee (you)’. *Your* in the translation is a clear sign of this as well.

- (15) **kăť-en** moś-λ
 cat-POSS.2SG purr-NPST[3SG]
 ‘Your cat is purring.’

In (16) the context indicates that the dog and the cat belong to the speaker. Northern Khanty requires the use of a possessive marker in such contexts. This is clearly illustrated in (17) where only the 1PL and 1DU possessives can be used, while the 2SG possessive and the bare form are infelicitous⁶.

- (16) **ma** tăj-λ-əm kăť’i pa amp.

⁶ The fact that both 1PL and 1DU possessives can be used in a context where the possessor is clearly dual suggests that the dual number (at least in the possessive paradigm) is non obligatorily marked, which might suggest that Northern Khanty is losing this category.

I have-NPST-1SG cat ADD dog
amp-εm kăt'-εm-ən kuš-s-a
 dog-POSS.1SG cat-POSS.1SG-LOC scratch-PST-PASS[3SG]
 'I have a cat and a dog. (My) dog has been scratched by (my) cat.'

- (17) **χot_λaηəλ-ew/-εmən/#-en/#-∅** pos-ijəλ
 house_roof-POSS.1PL/-POSS.1DU/-POSS.2SG drip-FREQ[NPST.3SG]
 {Vasya tells his wife:} '(Our) roof is leaking.'

In (18)–(21) the speakers allow the 2SG possessive, although they have a clear preference for another form.

Examples (18)–(20) present contexts with referents which can traditionally be labeled “globally unique” (Hawkins 1991). Here the 1PL possessive is the preferred marking strategy, although the 2SG possessive is also possible for some speakers. The bare form is dispreferred.

- (18) **ijul-ən wuλaη kəśaj-ew/%-en** beloarskij-a juχət-ti
 July-LOC main master-POSS.1PL/-POSS.2SG B.-DAT come-NFIN.NPST
 wɛr-əλ wəλ
 business-POSS.3SG be[NPST.3SG]
 'In July (our) president will visit Beloyarskiy.'
 Speaker's comment: "[with -en] it isn't clear which president it is"

- (19) **tām χătλ-ət tōrm-ew/%-en** wewtam
 this day-PL sky-POSS.1PL/-POSS.2SG bad
 'Lately (our) weather has been bad.'

Speaker's comment for -en: "if I'm talking to a friend from another city, refusing to visit him".

- (20) **kăt χătəλ mār śi χătλ-#(ew)/%-en**
 two sun in EMPH sun-POSS.1PL/-POSS.2SG
 pāləη saj-ən ăn kăλ
 rain.cloud behind-LOC NEG be.visible[NPST.3SG]
 'For two days already (our) sun hasn't been visible because of the clouds.'

Judging from the comments of the speaker in (18), the 2SG possessive form does not allow for a clear identification of the referent and in (19) it suggests that the speaker is concerned with the weather of some other region, namely, of the region of the addressee.

Although “global uniqueness” is a rather vague and context-dependent notion (König 2018) we see that, even intuitively, it enables us to derive an interesting observation. Namely, with “globally unique” referents, as in the examples above, the 1PL possessive is the preferred strategy

(where “globally unique” is understood as “unique at some higher level of abstraction than the immediate situation”).

In (21) the referent is anaphorically accessible as well as standing in a possessive relation with another referent. Here the 1SG possessive is again preferred over the 2SG possessive.

- (21) **śi** **kinška-jɛm/%-en** aŋk-ɛm-a mojl-əl-ɛm
 EMPH book-POSS.1SG/-POSS.2SG mother-POSS.1SG-DAT gift-NPST-1SG>SG
 ‘{Yesterday, I bought a book.} (My) book I will give to my mother as a present.’

It is important to note that the examples (16)–(21) all present contexts in which the 2SG possessive might have been used, but is not because another possessive interferes⁷. This is illustrated in the following sections.

These examples allow us to put forward the following generalization:

(22) **GENERALIZATION 1**

Whenever a “proper” possessive might be used, it is preferred over the 2SG possessive in its “extended” function.

Note also that the use of the 1PL possessive above is treated here as “proper” possessive use, although, clearly, this is not expected in European languages such as English or Russian. (One would usually say *the weather* or *the president* with the definite article in English or *pogoda* ‘weather’ or *prezident* ‘president’ without any definiteness marking in Russian.) I assume this difference to be a matter of pragmatic preference, *i.e.* there is a preference in Northern Khanty to mark a possessive relation whenever possible—and ‘president of the country one lives in’ is counted as a proper possessive relation. Whether this is indeed the case is a matter deserving a separate study.

3.2. Anaphoric uses

Apart from the proper possessive contexts, the 2SG possessive is used with anaphoric referents.

In the answer in (23), for example, the church that was introduced to the immediate context with the question is preferably marked with the possessive. In the question itself, the bare form is preferred, although the possessive is possible.

- (23) — χuta jɛm χot-(^{OK}en)?
 where sacred house-POSS.2SG
 — jɛm χot-^{OK}(en) wəλ woš kətəp-ən

⁷ For each of these examples, there is some one speaker among the five or six who provided judgements that gives *-en* in their initial translation. These speakers, however, also judge the other possessive to be acceptable.

sacred house-POSS.2SG be[NPST.3SG] village middle-LOC

‘— Where’s the (lit. your) church? — The (lit. your) church is in the middle of the village.’

The 2SG possessive is also disallowed as marking novel referents, which is characteristic of definite articles (Gillon 2015). In (24) the house that Vasya built must be unmarked. In (25) the soldier that the speaker finds in the house must also be unmarked.

- (24) vas’a-jen **χot-(#en)** oms-əs
 V.-POSS2.SG house-POSS.2SG sit-PST[3SG]
 ‘Vasya built a/#the (lit. your) house.’

- (25) ma χot-a λuη-s-əm. šāta **šāldat-(#en)** oməs-əλ.ḡ
 I house-DAT enter-PST-1SG there.LOC soldier-POSS.2SG sit-NPST[3SG]
 ‘I entered a house. A/#the (lit. your) soldier was sitting there. ...’

Compare these two examples to (26)–(27). In (26) the possessive marking on the last mention of the soldier is also preferred for all speakers.⁸ In (27) the anaphorically accessible dog is marked with the possessive.

- (26) ma **šāldat-%(en)** χuśa wana mǎn-s-əm, puškan-ən
 I soldier-POSS.2SG to closer come-PST-1SG gun-LOC
 šāš-s-əm. **šāldat-#(en)** pakn-əs.
 show-PST-1SG>SG soldier-POSS.2SG become.scared-PST[3SG]
 {Cont’d from (25)} ‘I came closer to the soldier and aimed at him with my gun. The (lit. your) soldier got scared.’
- (27) **amp-en/#-Ø** ma peλ-am-a χurət-ti pit-əs
 dog-POSS.2SG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
 ‘{I was walking along the street when I saw a dog.} The (lit. your) dog started barking at me.’

Speaker’s comment on Ø: “en it’s some other dog, not clear which”.

Example (28) presents a bridging context in which the preceding discourse introduces a place—outside—to which the grass in the example relates. The 2SG possessive marking is again the preferred strategy.

- (28) turən-λ-an / #turən-ət χuλ jɪŋk-et
 grass-PL-POSS.2SG grass-PL all wet-PL

⁸ The variable judgements regarding the first mention of the soldier in (26) might be due to the fact that the NP in question is an object of a postposition in this case. It is well known in the literature on definite articles that determinacy related markers behave almost unpredictably with adpositions (König 2018). With this in mind I will ignore such contexts for the present purposes.

‘{Have you been outside (lit. on the street) today?} The (lit. your) grass is all wet.’

Example (29) presents another bridging context in which both the 2SG possessive and the 3SG possessive are possible. The thief is implicitly introduced in the preceding context with the verb ‘steal’, thus fulfilling the conditions for the use of the 2SG possessive. The possibility of the 3SG possessive marking is arguably due to a relation between the thief and the computer being recoverable from the discourse.

- (29) muzej ewəlt kampjuter loləm-s-a.
 museum from computer steal-PST-PASS[3SG]
 muλχatəλ **loλmaχ-en/-əλ** wəjt-s-a
 yesterday thief-POSS.2SG/-POSS.3SG find-PST-PASS[3SG]
 ‘A computer was stolen from the museum. Yesterday the thief was found.’

Thus, we observe that when the referent of an NP is anaphorically accessible, 2SG possessive marking becomes the preferred or even the only possible option. Novel referents, on the other hand, disallow 2SG possessive marking.

Furthermore, if the thief from (29) is marked with the 2SG possessive, the following context, implying that there was another thief, is forbidden (30).

- (30) ... muλχatəλ **loλmaχ-en** wəjt-s-a
 ... yesterday thief-POSS.2SG find-PST-PASS[3SG]
 #tām χatλ kim-mit loλmaχ-əλ wəjt-s-a
 this day second-ORD thief-POSS.3SG find-PST-PASS[3SG]
 ‘{A computer was stolen from the museum.} Yesterday, the thief was found. #Today, a second thief was found.’

This suggests that in anaphoric uses, the 2SG possessive bears a uniqueness inference much like European definite articles (König 2018).

One last observation pertains to the use of the 2SG possessive with anaphorically accessible referents in the case of plural addressees. Examples (31) and (32) are minimal pairs to (27) and (29), respectively, with the differences being that the speaker is explicitly addressing a group of people. However, we observe that still the 2SG possessive must be used and not the 2NSG possessive (used with dual and plural possessors).

- (31) amp-en/#-ən χurət-ti pit-əs
 dog-POSS.2SG/-POSS.2NSG bark-NFIN.NPST become-PST[3SG]
 {A mother is telling her children.} ‘{I was walking along the street and I saw a dog.} The (lit. your (SG)) dog started barking at me.’

- (32) muzej ewəlt kəmpjuter loləm-s-a.
 museum from computer steal-PST-PASS[3SG]
 muλχatəλ loλmaχ-en/-əλ/#-ən wəjt-s-a
 yesterday thief-POSS.2SG/-POSS.3SG/-POSS.2NSG find-PST-PASS[3SG]
 {A woman is telling her neighbors.} ‘A computer was stolen from the museum. Yesterday
 the (lit. your (SG)) thief was found.’

These last examples suggest that in the case of anaphoric uses, the function of the 2SG possessive is not to relate the referent in question to the addressee in some way—in that case the 2NSG marker would have been used with plural addressees.

(33) **GENERALIZATION 2.1**

2SG possessive marking is either the preferred or the only possible strategy for an anaphorically accessible NP. Novel referents cannot be marked with the possessive. A marked NP in such cases bears a uniqueness inference. The same marker is used in such cases with plural addressees.

Note that this generalization is hierarchically lower than Generalization 1, *i.e.* if a “proper possessive” might be used then it is preferred with both novel and anaphorically accessible referents over the bare form and the 2SG possessive, respectively. The same holds for the generalizations to follow.

3.2.1. Anaphorically inaccessible referents are unmarked

It seems reasonable to assume that if the 2SG possessive marking is employed for anaphorically accessible referents, it should also be used for referents accessible from general knowledge or the common ground.

For example, if both the speaker and the addressee live in the Kazym village where there is only one church, one expects to find this church marked with the 2SG possessive when mentioned. However, this is not what we find.

Examples (34)–(35) show that in the case of anaphorically inaccessible although unique referents the 2SG possessive marking is barred.

In (34) the speaker reports an event that happened yesterday. A locally unique church is involved (the situation is assumed to take place in Kazym) and the 2SG possessive marking is impossible.

- (34) muλxatλ uχ pun-ti χot-(#en)-ən
 yesterday head put-NFIN.NPST house-POSS.2SG-LOC
 χuj-at tuman-ət wəjt-s-əm
 who-INDEF lock-PL find-PST-1SG

‘{What happened yesterday?} Yesterday, I found somebody’s keys in the church.’

In (35) (repeated with adjustments from (7)) for a church that Vasya shows to the speaker the 3SG possessive marking and zero marking are both possible (with the former conveying that the church is in the same village that Vasya lives in).

- (35) was'a-jen mǎnɛm-a **cerkow-əl/#-en**^{OK-∅} wan-əlɬ-əs-λe
 V.-POSS.2SG I-DAT church-POSS.3SG/-POSS.2SG see-CAUS-PST-3SG>SG

‘{Me and Vasya were walking around Kazym village.} Vasya showed me the/his church’.

We observe that a referent that is unique in the given context, but is not anaphorically accessible, must be unmarked with respect to the 2SG possessive.

This latter observation distinguishes the 2SG possessive from Becker’s (2019) definite article proper which should be used in such a context.

(36) GENERALIZATION 2.2

The 2SG possessive is ruled out with anaphorically inaccessible referents.

3.2.2. *Partitive specific use is reserved for the 3SG possessive*

Apart from the cases considered in section 3.1, there is one more set of contexts in which one might expect the 2SG possessive marker to appear, but another marker is used.

In contexts where the referent of the NP in question is a part of a previously introduced group, the 3SG possessive is the only possible strategy. (Such contexts have been discussed in detail in Enç 1991 for Turkish.)

In (37) the speaker says that they know two of the girls that walked into the classroom. Here the NP cannot be marked with the 2SG marker and must be marked with the 3SG marker.

- (37) **kāt-ŋaλ⁹/#-ŋəλ-an** ma wə-λ-əm.
 two-DU.POSS.3SG/-DU-POSS.2SG I know-NPST-1SG
 ‘{Several girls entered the classroom.} I knew (lit. his) two (of them).’

Examples (38) and (39) (repeated with adjustments from (27)) show that the 3SG possessive marker is infelicitous in a strictly anaphoric context.

- (38) žučka-jew **kāt’-(en)-ən** / #**kāt’-eλ-ən** kuš-s-a
 Zh.-POSS.1PL cat-POSS.2SG-LOC cat-POSS.3SG-LOC scratch-PST-PASS[3SG]
 ‘{There’s a black cat living in our neighborhood. And we have a white dog Žučka.} Žučka has been scratched by the cat.’

⁹ Number markers have a default and a possessive allomorph. In this case the dual marker’s possessive allomorph is used which indicates that a possessive is present. However, this (3SG) possessive is not overtly marked which is due to haplology: -ŋəλ-aλ is reduced to -ŋaλ.

- (39) **amp-en/#-əλ/#-∅** ma peλ-am-a χurət-ti pit-əs
 dog-POSS.2SG/-POSS.3SG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
 ‘{I was walking along the street when I saw a dog.} The (lit. your) dog started barking at me.’
 Speaker’s comment on -əλ: “then it’s his dog [the dog of some third person], not clear who [the third person is]”.

In (40), unlike (38) and (39), the cat is introduced in the same conjoined NP with the dog, thus forming a group with it. Since a group is given in the preceding context the 3SG possessive marker must be used, when only the cat is referred to in the last sentence of (40).

- (40) ma kamən **amp pa kăt’i** šiwaλ-əs-əm,
 I outside dog ADD cat see-PST-1SG
 λin kulaś-s-əηən.
 they.DU fight-PST-3DU
kăt’-eλ/#-en/#-∅ nuχ pit-əs
 cat-POSS.3SG/-POSS.2SG up become-PST[3SG]
 ‘I saw a cat and a dog on the street. They were fighting. The (lit. his/her/its) cat won.’
 Speaker’s comment: “[-eλ must be used, because] this is one of the participants of the incident”.

Such usage of the 3SG possessive is common in the languages of the Finno-Ugric family generally and beyond (Simonenko 2017).

(41) GENERALIZATION ON POSS.3SG

The 3SG possessive marker is used in partitive specific contexts and is not used in anaphorically specific contexts. The 2SG possessive is not used in partitive specific contexts.

3.3.Uses in commands

In section 3.2.1, we observed that an anaphorically accessible locally unique referent is preferably unmarked (42) (repeated from (35)).

- (42) was'a-jen mănem-a **cerkow-əλ/#-en/-∅** wan-əλt-əs-λe
 V.-POSS.2SG I-DAT church-POSS.3SG/-POSS.2SG see-CAUS-PST-3SG>SG
 ‘{Me and Vasya were walking around Kazym village.} Vasya showed me the/his church.’

In contrast to this observation, in commands the very same referent must be marked with the 2SG possessive (43).

- (43) **cerkow-#(en)** mănem wan-əλt-e

church-POSS.2SG me.DAT see-CAUS-IMP.SG.SG
 {Walking around Kazym village.} ‘Show me the church.’

Example (44) demonstrates the same effect, while (45) shows that with a non-unique referent the 2SG possessive marking is barred.

(44) **an-#(en)** mi-je
 cup-POSS.2SG give-IMP.SG.SG
 {There’s only one cup on the table.} ‘Pass me the (lit. your) cup.’

(45) **an-#(en)** mi-je
 cup-POSS.2SG give-IMP.SG.SG
 {There’s several cups on the table.} ‘Pass me a cup.’
 Speaker’s comment on *-en*: “[the addressee] will then ask ‘which cup?’”.

These examples suggest that in commands the 2SG possessive also has a uniqueness inference. The bare form in these contexts has an anti-uniqueness inference.

Examples (46)–(47) show that a 2SG possessive-marked referent in a command must be existent. If one is asked to dig a hole, the bare form is used. If one is asked to fill it up, the marked form is used.

(46) **muw** **lot-#(en)** χir-a
 earth hole-POSS.2SG dig-IMP[SG]
 {Working in the garden.} ‘Dig a hole.’

(47) **muw** **lot-#(en)** läp χir-e
 earth hole-POSS.2SG tight dig-IMP.SG.SG
 {Working in the garden.} ‘Fill up the hole.’

The minimal pair in (48)–(49) further suggests that the marker has either an existence or a familiarity inference (and the bare form has an anti-familiarity inference). Incidentally, this behavior is characteristic of European definite articles (König 2018). If the speaker asks the addressee to make a fire from scratch, the bare form must be used. If the wood is already put together for the fire or if it is a fire in the usual place for the speaker and the addressee, the marked form must be used.

(48) **tut-#(en)** wɛr-a
 fire-POSS.2SG make-IMP.SG
 ‘Make a fire.’

Speaker’s comment on *-en*: “[if the marked form is used, then] it’s a fire on a place, where we usually light our fires, [with the bare form] it’s a fire in a new place”.

- (49) **tut-#(en)** ἄλλ-ι
 fire-POSS.2SG light-IMP.SG.SG
 ‘Light the (lit. your) bonfire.’

Speaker’s comment on *-en*: “[only the marked form can be used,] if the wood for the fire is already put together and readied”.

Examples (50)–(51) show that if the addressee is plural, the possessive marker used is *-ən* [POSS.2PL]. The bare form is infelicitous here just as in the examples above.

- (50) jaj-et, **tut-#(ən)** ἄλλ-a-λən!
 brother-PL fire-POSS.2PL light-IMP-NSG.NSG
 {The wood is already put together.} ‘Brothers, light the (lit. your (PL)) fire!’

- (51) ἡαωρεμ-ət, **soχλ-#(ən)** μεηχ-a-λən
 child-PL board-POSS.2NSG wipe-IMP-NSG.NSG
 {A teacher is telling her students.} ‘Children, wipe the board!’

In a sentence in the jussive mood (52), where the plural addressee is implicitly asked to affect the fate of an object (or rather to not affect it in this example), again, the 2NSG possessive marker is used.

- (52) **šajput-ən** juλən at wəλ
 kettle-POSS.2NSG at.home OPT be[NPST.3SG]
 {A mother says to her children before going out (on a picnic) about the only kettle that they have:} ‘Let the kettle remain home.’

Overall, the puzzling issue is that if we turn back to the uses in indicative sentences (see 3.2.1), uniqueness is not sufficient for the 2SG possessive marking to be possible. If the referent is not anaphorically accessible, the bare form is the preferred option. In anaphoric uses, the 2NSG possessive marker is not used with plural addressees.

We observe that the 2SG possessive behaves differently in indicative sentences and in commands. It is preferred over the bare form in commands, agrees with the addressee in number, and bears existence, uniqueness, and familiarity inferences.

The same is true for indirect commands. Example (53) is grammatically a constative (an indicative sentence), however, in this context it also indirectly conveys a directive ‘Put the cup away!’ (in the terminology of Searle 1969). Since the cup is unique in this context and it figures in a (indirect) command, the 2SG possessive is used.

- (53) **an-#(en)** χᾶś śi răkn-əλ, ajəλta
 cup-POSS.2SG almost EMPH fall-NPST[3SG] carefully

{The speaker’s friend helps them take care of the mess in the kitchen. Among the things on the table there’s a cup just on the edge. The speaker says:} ‘Careful, the cup is about to fall!’

Lest it appear that the indirect speech act in (53) does not motivate the use of the 2SG possessive, a similar example with no indirect directive is provided in (54). Here the speaker does not order the hearer to interact with the contextually unique kettle in any way, but simply observes that the kettle is boiling rather quickly. Since no command is present and the referent is not anaphorically accessible, the 2SG possessive is impossible.

- (54) **šajput-εm/#-en** sora kawərm-əλ
 kettle-POSS.1SG/-POSS.2SG quickly boil-NPST[3SG]

{The speaker and their friend are sitting in the speaker’s kitchen, tired after a bath. They just put the kettle on fire and are waiting for it to boil in silence. The speaker says:} ‘The kettle is boiling quickly!’

The generalization regarding the uses in commands is as follows:

(55) **GENERALIZATION 3**

The 2SG possessive is preferred over the bare form in (direct and indirect) commands for unique referents. In these cases, it bears existence, familiarity, and uniqueness inferences. If the addressee is plural, the 2NSG marker is used instead.

4. Analysis

4.1. Possessive markers as indexicals

There is no doubt that possessive markers are semantically like pronouns, *i.e.* indexical. Assuming the standard Kaplanian view of indexicals (Kaplan 1989), Northern Khanty possessives work as follows.

As with any indexicals, the semantic content of possessives depends on the context of utterance. For instance, consider the first-person singular possessive *-εm*. If (56) is uttered by me, it must be something like ‘the *x* such that *P(x)* & *x* is owned by the author of this paper’, where *P* is the content of the noun that the possessive combines with¹⁰. If the sentence is uttered by somebody else, then they will stand in an ownership relation to *x*.

- (56) **kāt’-εm**
 cat-POSS.1SG
 ‘my cat’

¹⁰ Here again for the sake of exposition we assume that possessive expressions are like definite expressions in requiring uniqueness which, however, is not always the case (Barker 2011).

Based on this, one can assume that the index—which given the context determines the semantic content of an indexical—of a possessive marker is ‘the speaker’, ‘the addressee’ or ‘the salient individual’ for the first, second and third-person possessives respectively (see Recanati 2005 for a proper treatment of the third person)¹¹.

It is clear, however, that the second person possessive marker *-en* in its extended uses must differ from its “family members” by something else beyond the index. If all possessives simply contributed something like ‘the *x* such that *P(x)* and *x* stands in some relation *R* to the index’, we would expect the first-person plural possessive marker *-ew*¹² to be used in most of the cases discussed above, since it makes a stronger statement which is also true. If something is ‘ours’, then it is necessarily also ‘yours’ (and ‘mine’ for that matter). Therefore, using ‘yours’ in a context in which ‘ours’ might have been true implicates that the statement with ‘ours’ is false.

Consider (57) (repeated with adjustments from (27)), in which an anaphorically accessible dog is marked with the second person possessive.

- (57) **amp-en** ma peλ-am-a χurət-ti pit-əs
 dog-POSS.2SG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
 ‘{I was walking along the street when I saw a dog.} The (lit. your) dog started barking at me.’

Suppose that *-ew* [POSS.1PL] and *-en* [POSS.2SG] are semantically equivalent (*modulo* the index). Then both must be able to pick up a relation *R* like ‘is-salient-to’. Clearly, the dog is salient both to the speaker and to the addressee in (57). Hence, the use of *-ew* is expected in (57). On the other hand, the use of *-en* is predicted to evoke an implicature that the dog is not salient to the speaker (Horn 2004), which is obviously false in this context.

Moreover, as we observed in 3.2 the 2SG possessive does not change to the 2NSG possessive with plural addressees in anaphoric uses (unlike the uses in commands).

Both observations suggest that in anaphoric uses the 2SG possessive is no longer indexical (its content does not vary with context).

In commands, however, the 2SG possessive must be indexical, because it changes to the 2NSG possessive in appropriate contexts, but is also different from proper possessives, since it has uniqueness and familiarity entailments and it also does not compete with the 1PL possessive.

¹¹ There must also be an index which determines the exact relation that the possessee stands in to the possessor (Karvovskaya 2018).

¹² In its inclusive reading, where it refers to ‘me and you’, as opposed to its exclusive reading, where it refers to ‘me and some third party’.

Therefore, I conclude that there are at least three distinct markers *-en*: the possessive, the salient article, and the anaphoric article. The latter two differ semantically from run-of-the-mill possessive markers such as *-ew* [POSS.1PL]¹³.

4.2.2SG possessive

The generalizations that we have derived so far are presented below:

(58) **GENERALIZATION 1**

Whenever a “proper” possessive might be used, it is preferred—either strongly or completely—over the 2SG possessive in an “extended” function.

(59) **GENERALIZATION 2.1**

2SG possessive marking is either the preferred or the only possible strategy for an anaphorically accessible NP. Novel referents cannot be marked with the possessive. A marked NP in such cases bears a uniqueness inference. The same marker is used in such cases with plural addressees.

(60) **GENERALIZATION 2.2**

The 2SG possessive is ruled out with anaphorically inaccessible referents.

(61) **GENERALIZATION 3**

The 2SG possessive is preferred over the bare form in commands involving unique referents. In these cases, it bears existence, familiarity, and uniqueness inferences. If the addressee is plural, the 2NSG marker is used instead.

As discussed at the end of the previous section and as the last clauses of generalizations 2.1 and 3 show, we are indeed dealing with different markers in anaphoric uses and in commands.

The first one behaves quite like Becker’s (2019) anaphoric article, while the second one is something like a “uniqueness” article although still clearly indexical in being dependent on the actual addressee in its number features. For the current purposes it will be called a “salient article” for reasons that will become clear below.

There is yet a third marker with the exponent *-en* and that is a usual 2SG possessive marker illustrated in (19) (repeated as (62)). Here the marker clearly competes with the 1PL possessive as it should if it is equivalent semantically (*modulo* person-number features).

- (62) *tām* *χātλ-ət* **torm-ew/%-en** *wewtam*
 this day-PL sky-POSS.1PL/-POSS.2SG bad
 ‘Lately (our) weather has been bad’.

¹³ See the elaboration under (20) as to why I consider the uses with “globally unique” referents discussed in section 3.1 proper possessive.

Speaker's comment on *-en*: “if I'm talking to a friend from another city, refusing to visit him”.

The differences between the three markers with the exponent *-en* are summarized in Table 2 below¹⁴.

| | I. PROPER POSSESSIVE <i>-en</i> | II. SALIENT ARTICLE <i>-en</i> | III. ANAPHORIC ARTICLE <i>-en</i> |
|---|------------------------------------|-----------------------------------|--------------------------------------|
| Competition with the 1PL possessive <i>-ew</i> | + | * | * |
| Dependence of number features on the addressee | + | + | * |

Table 2. Properties distinguishing the three Northern Khanty markers with the exponent *-en*

For Generalization 1—the preference for proper possessives over extended ones—it is beyond the scope of the current paper.

4.2.1. Proper possessive *-en*

Marker I semantically is a proper possessive. As discussed in 2.1, this means that it corresponds to Karvovskaya's operator MinSpec_i with the person-number features fixed for the possessor (63) (based on (6)). The superscript ^I indicates that it is the proper possessive *-en*.

I assume a standard formal semantic framework (*e.g.*, Heim, Kratzer 1998) with the addition of an interpretation relative to contexts of use *c*, for indexicals.

In this system expressions are interpreted by the interpretation function $[[.]]^{g,c}$ relative to an assignment function *g* that maps natural numbers (presented as indices) to relations (in our case) or individuals and relative to a context *c*. The standard semantic types are assumed.

(63) $[[\text{-en}_i^I]]^{g,c} = \lambda P_e \rightarrow \lambda x_e. g(i)(\text{Addressee in } c, x) \ \& \ P(x)$ where *g*(*i*) is a relation, defined iff the addressee is singular and undefined otherwise

The proper possessive -en_i^I is a function that takes the intension of a noun *P* and an individual *x* and states that *x* stands to the Addressee in the utterance context *c* in the relation assigned to the index *i* by the assignment *g* and that *x* is in the extension of *P*.¹⁵

¹⁴ Below the markers are referred to with roman numerals for brevity as: proper possessive *-en* — marker I; salient article *-en* — marker II; anaphoric article *-en* — marker III.

¹⁵ An attentive reader might notice that once the denotation of a noun (the predicate *P*) is supplied to -en_i^I (and to -en_i^{II} for that matter) the resulting expression is of type $e \rightarrow t$ and therefore cannot compose with a verb that requires an expression of type *e*. I leave this issue to be resolved in future work.

4.2.2. Salient article -en

In commands, the marker also introduces a relation between the addressee and the referent of the marked NP, however, in this case the relation is fixed to SALIENT_TO. The semantics of marker II are given in (64).

$$(64) \quad [[-en^{\text{II}}]]^{g,c} = \lambda P_e \rightarrow \lambda x_e. \text{SALIENT_TO}(\text{Addressee in } c, x) \ \& \ P(x)$$

The salient article $-en^{\text{II}}$ is a function that takes the intension of a noun P and an individual x and states that x stands in the SALIENT_TO relation to the Addressee in the utterance context c .

Note that in a proper treatment, the uniqueness condition in (64) must be relativized to a circumstance of evaluation s , which is omitted here for clarity¹⁶. Also, I assume that if a group individual (e. g. three cups) is in the SALIENT_TO relation to the addressee, then its parts (each of the cups) is not necessarily in the SALIENT_TO relation to the addressee, that is, the relation is quantized: if it applies to some entity, it does not apply to its parts.

Thus, an expression like *cerkow-en^{II}* ‘the church’ in a context c denotes a predicate over church individuals that are salient to the addressee in c .

This analysis crucially hinges on the notion of salience to the addressee. However, even without any understanding of this notion beyond an intuitive one—e.g. a high level of activation in the consciousness of the addressee—it makes the correct predictions for the examples discussed above.

A unique referent in a command is salient to the addressee since the addressee is requested to engage with it and its identity is clear from the context. A non-unique referent is not salient since it is not distinguished in any manner from its resemblances (the overall group might be salient, but its parts are not).

It is not exactly clear what the right way to model the number-feature dependence of marker II is. I leave this question for future work.

4.2.3. Anaphoric article -en

Simonenko (to appear) discusses formal approaches to different types of determiners including the weak vs. strong definite article contrast, which corresponds to Becker’s (2019) definite proper vs. anaphoric distinction (see section 2.2).

Following Schwarz (2009), Simonenko assumes that with strong (i.e. anaphoric) articles a silent pronominal element i is present in the structure of the NP. This element accounts for the anaphoricity and scopelessness of NPs with strong articles (see the original paper for details).

¹⁶ The SALIENT_TO relation must also be relativized to the context of use and the possessive relation in (63) must be relativized to the circumstance of evaluation, since clearly two entities may stand in some relation in one situation, but not in the other. The same applies to the anaphoric article $-en$. All of these details are omitted here for clarity.

For current purposes $-en^{III}$ is taken to have the same semantics as the strong article in Simonenko (to appear):

$$(65) \quad [[-en^{III}]]^{g,c} = \lambda P_e \rightarrow \lambda y: \exists! x[P(x) \ \& \ x = y]. \ \iota x[P(x) \ \& \ x = y]$$

The salient article $-en^{III}$ is a function that takes the intension of a noun P and a unique individual y and returns that individual.

Note that the addressee does not figure in the semantics of $-en^{III}$ in any way. It is thus predicted that the atomicity of the addressee should not affect the number features of $-en^{III}$ and, indeed, $-en^{III}$ does not have any number features.

An expression like *i cerkow-en^{II}* ‘the church’ with the silent pronominal element *i* relative to some assignment g denotes that unique church individual, which is assigned to *i* by g , where *i* bears the same index as an individual in prior discourse.

5. Conclusions

This paper concerns the semantics of the 2SG possessive marker of Northern Khanty. It shows that the marker is used in several contexts beyond the proper possessive ones (section 3). In these “extended” uses it behaves quite differently depending on the particular use type (anaphoric or in commands). One can thus speak at least of three distinct markers with the exponent *-en*.

The first one is the usual 2SG possessive $-en^I$ which competes with other possessives and depends in number features on the atomicity of the addressee—if the addressee is plural, the marker is accordingly $-ən$ (section 3.1). Semantically, it corresponds to Karvovskaya’s (2018) MinSpec_i operator with the addressee fixed as the first argument of the relation (section 4.2.1). This operator, Karvovskaya argues, corresponds to the semantics of lexically unrestricted (“non-idiosyncratic” in her parlance) possessive strategies in the world’s languages: it states that the NP referent stands in some contextually recoverable relation to the possessor.

The second marker is the salient article $-en^{II}$ (as it was called in this paper). It is used with unique objects in commands (section 3.3). It states of a referent of an NP that the referent stands in a SALIENT_TO relation to the addressee (section 4.2.2). Should the addressee be plural, the exponent is accordingly $-ən^{II}$ [POSS.2NSG]. This marker, however, does not compete with other possessives as shown in 4.1.

The third marker is the anaphoric article $-en^{III}$ used with anaphorically accessible unique referents (section 3.2). Semantically it is equivalent to Schwarz’s (2009, cited in Simonenko (to appear)) strong definite article (section 4.2.3).

An important challenge to resolve in future work is the semantic composition of $-en^I$ or $-en^{II}$ marked NPs with the verb, since under the present proposal they have incompatible semantic types: the verb requires an entity of type e and these markers derive expressions of type $e \rightarrow t$. I leave the development of a fully explicit system for future work.

6. References

- Barker 2011 — Barker, C. (2011). Possessives and relational nouns. *Semantics: An International Handbook of Natural Language Meaning*. De Gruyter, 1108-1129.
- Becker 2019 — Becker, L. (2019). *Articles in the world's languages*. PhD thesis, Leipzig University, 2018 (draft of 22/08/2019)
- Enç 1991 — Enç, M. (1991). The semantics of specificity. *Linguistic inquiry*, 1-25.
- Hawkins 1991 — Hawkins, J. A. (1991). On (in) definite articles: implicatures and (un) grammaticality prediction. *Journal of linguistics*, 27(2), 405-442.
- Heim, Kratzer 1998 — Kratzer, A., & Heim, I. (1998). *Semantics in generative grammar* (Vol. 1185). Oxford: Blackwell.
- Horn 2004 — Horn, L. R.. (2004). Implicature. *The handbook of pragmatics*. Oxford: Blackwell.
- Gillon 2015 — Gillon, C. (2015). Investigating D in languages with and without articles. *Methodologies in semantic fieldwork*, 175-203.
- Gorbunova 2009 — Gorbunova, I. M. (2009). Possessivnye konstrukcii [possessive constructions]. *Aspekty polisintetizma: Ocerki po grammatike adygejskogo jazyka* [Aspects of polysynthesis: Sketches on the grammar of Adyghe], ed. Ya. G. Testelet, 146-165.
- Kaksin 2010 — Kaksin, A. D. (2010). Kazymiskij dialekt khantyiskogo jazyka [Kazym dialect of the Khanty language] (second edition). Khanty-Mansijsk: IIC YuGU.
- Kashkin 2010 — E. V. Kashkin (2010). Diskursivnye funkicii posessivnyx pokazatelej v teginskom govore xantyjskogo jazyka [Discourse functions of possessive markers in the Tegi variety of the Khanty language]. Field report, Tegi village, Berezovsky rayon of the Khanty-Mansi Autonomous Okrug.
- Kaplan 1989 — Kaplan, D. (1989). Demonstratives. Kaplan, D. (1989). *Themes from Kaplan*. Oxford University Press, pp. 481–563.
- Karvovskaya 2018 — Karvovskaya, L. (2018). *The typology and formal semantics of adnominal possession*. LOT, Netherlands Graduate School.
- König 2018 — König, E. (2018). Definite articles and their uses. *Aspects of Linguistic Variation*. Berlin, Boston: De Gruyter Mouton, 165-184.
- Nikolaeva 1999 — Nikolaeva, I. (1999). *Ostyak*. Lincom Europa.

- Nikolaeva 2003 — Nikolaeva, I. (2003). Possessive affixes in the pragmatic structuring of the utterance: Evidence from Uralic. In International Symposium on Deictic Systems and Quantification in Languages Spoken in Europe and North and Central Asia: Collection of papers (pp. 130-145).
- Recanati 2005 — Recanati, F. (2005). Deixis and anaphora. *Semantics versus pragmatics*, 286-316.
- Rubin 2010 — Rubin, A. D. (2010). The development of the Amharic definite article and an Indonesian parallel. *Journal of semitic studies*, 55(1), 103-114.
- Schwarz 2009 — Schwarz, F. (2009). *Two Types of Definites in Natural Language* (Doctoral dissertation, University of Massachusetts at Amherst).
- Searle 1969 — Searle, J. R. (1969). *Speech acts: An essay in the philosophy of language*. Cambridge University Press.
- Simonenko 2017 — Simonenko, A. (2017). Towards a semantic typology of specific determiners. In 21st Amsterdam Colloquium (pp. 425-434).
- Simonenko (to appear) — Simonenko, A. (to appear). Full vs. bound vs. clitic determiners. *Oxford handbook of determiners*. (lingbuzz/004519)
- Smirnova 2019 — A. Smirnova (2019). Posessivnost' 2.0 [Possessivity 2.0]. Field report 17.07.2019, Kazym village, Khanty-Mansi Autonomous Okrug.

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