DOI: 10.37892/2500-2902-2024-55-4-31-57

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Diagnosing Kazym Khanty unpossessives, or how to tell a synchronically independent marker from its diachronic source

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Uralic possessive agreement suffixes often develop determiner-like functions. Several authors have suggested **monosemic** analyses of such functions as derived from the basic possessive meaning. However, recent studies have argued that the functions they investigate must be treated as synchronically independent markers because they do not behave morphosyntactically in the same way that their corresponding proper possessives do. Building on the work of my predecessors, I develop several **unpossessive diagnostics** to test whether a non-possessive function displays the same behavior as the proper possessive function of the same exponent with respect to several morphophonological, morphosyntactic, semantic, and pragmatic parameters. I apply these diagnostics to the Kazym Khanty second-person singular possessive *-en*/*-an* in its three non-possessive functions. I argue that these functions must be treated as three distinct **unpossessive markers:** the **associative possessive**, the **salient article**, and the **proprial article.** These markers are homonymous with the proper possessive but are synchronically independent from it. Furthermore, I develop an analysis of these markers within the framework of Distributed Morphology, which allows us to model their differences while also accounting for their similarities. I address some potential weaknesses of this analysis, justifying them by appealing to how grammaticalization processes normally work. The approach to non-possessive functions of possessives presented in this paper should be applied to data from other languages that feature extended possessives.

Keywords: possessives, definiteness, Distributed Morphology, grammaticalization, Kazym dialect of Northern Khanty, Uralic languages

ДИАГНОСТИКИ ДЛЯ КАЗЫМСКИХ ХАНТЫЙСКИХ БЕСПОСЕССИВОВ: КАК ОТЛИЧИТЬ СИНХРОННО НЕЗАВИСИМЫЙ ПОКАЗАТЕЛЬ ОТ ЕГО ДИАХРОНИЧЕСКОГО ИСТОЧНИКА

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Показатели посессивного согласования в уральских языках часто развивают функции детерминаторов. Ряд исследователей предлагали для подобных функций моносемический анализ, при котором эти функции вытекают из общего посессивного значения конструкции. В нескольких недавних работах другие исследователи доказывают на основании морфосинтаксических аргументов, что исследуемые ими непосессивные функции синхронно представляют морфемы, отдельные от собственно посессива. Основываясь на результатах моих предшественников, я формулирую несколько **беспосессивных диагностик**, предназначенных для тестирования непосессивных функций посессивных показателей на предмет отличий от собственно посессивной функции по морфонологическим, морфосинтаксическим, семантическим и прагматическим параметрам. Я применяю эти диагностики к севернохантыйскому посессиву 2-го лица единственного числа *-en*/*-an* (казымский диалект) в трёх непосессивных функциях, что позволяет доказать, что эти функции должны рассматриваться как три синхронно независимых, **беспосессивных показателя**: ассоциативный посессив, салиентный артикль и проприальный артикль. Эмпирическая аргументация подкрепляется анализом этих показателей, сформулированном в модели распределённой морфологии, что дает возможность объяснить как их различия, так и их сходства. Я также предлагаю независимое объяснение для потенциальных недочётов рассматриваемого анализа, основанное на теории грамматикализации.

Ключевые слова: посессивность, определённость, распределённая морфология, грамматикализация, казымский диалект севернохантыйского языка, уральские языки

This work presents some results of project № 23-00-036 “Khanty in a Typological Perspective” carried out within the framework of the Basic Research Program at the National Research University Higher School of Economics (HSE University) in 2024.

1. Introduction[1]

Uralic languages are well-known to have possessive agreement suffixes (possessives) that often figure outside typical possessive contexts [Fraurud 2001; Nikolaeva 2003; Simonenko 2017; Halm 2018; É. Kiss 2018; É. Kiss, Tánczos 2018, among others]. In such non-possessive functions, the markers do not seem to express any possessive meaning: they can hardly be said to denote a relation between a possessor and a possessee that corresponds to the possessive prototype of ownership, parthood or other inalienable possession (as in [Nikolaeva 2003] or [Karvovskaya 2018]). The markers rather seem to function similarly to determinacy markers, for example, the European definite articles [Schwarz 2019] or the Turkish differential object marker conditioned on partitive specificity [Farkas, Brasoveanu 2019: § 2.3].

The Kazym dialect of Northern Khanty (< Khantyic < Uralic) presents a case where a second-person singular possessive suffix *-en*/*-an* [POSS.2SG] figures in as many as three frequent non-possessive functions[2]. These functions are exemplified below along with the names I will be using for them in the remainder of the paper.

Apart from the proper possessive function that describes a prototypical possessive relation (1), the Kazym Khanty POSS.2SG is also used with familiar referents that stand in an **associative relation** [Nikolaeva 2003] to another activated referent (2). Thus, in (2) the only cup available in the context is associated with the addressee, presumably, because of physical proximity, which motivates POSS.2SG marking. (Note that there is no proper possessive relation between the addressee and the cup here. See § 6 for more examples of associative relations.)

(1) Proper possessive
nəŋ ***kət′-en*** *moś-λ*
you.SG cat-POSS.2SG purr-NPST[3SG]
'Your cat purrs.'

(2) Associative possessive
[A friend is over at the speaker's place. There's one cup on the table.]
an-en *mij-e*
cup-POSS.2SG give-IMP.SG>SG
'Give me the cup.'

Another POSS.2SG function is observed with **salient referents** like the dog in (3) that was introduced in the preceding utterance and stands in the subject position in the target sentence[3].

(3) Salient article
["I was walking along the street when I saw a dog."][4]
amp-en *ma* *pɛλ-am-a* *χurət-ti* *pit-əs*
dog-POSS.2SG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
'The dog started barking at me.'

Finally, POSS.2SG is obligatorily used **with human names** in argument positions (4) like a prototypical proprial article[5].

[1] This text has greatly benefitted from comments by Nikita Muravyev, Natalia Logvinova, Daniar Kasenov, Kate Kozlova, Ksenia Kashintseva, John Beavers, Ruth Kramer, and the two anonymous reviewers for "Ural-Altaic Studies". I express my sincere gratitude to them, as well as to Alexey Kozlov and Svetlana Toldova for their supervision of the Kazym Khanty field project. I am also thankful to the audiences at the 15th, 16th, and 18th Conferences on Typology and Grammar for Young Scholars (ILS RAS), linguistweets 1 & 2 (Abralin, 2022, 2023), the 11th TMP Conference (IL RAS), Minority languages in big linguistics (Lomonosov MSU, 2021), SLE 2021, and the Uralic Information Centre (2022) for their valuable suggestions. I would also like to thank my Khanty consultants from Kazym, whose assistance was indispensable for this study. All remaining errors are my own.

[2] I use *function* as a noncommittal term that does not distinguish between separate senses of a morpheme or merely contextualized uses of a monosemic marker (*cf.* [Haspelmath 2003]). I invite the reader to understand the functions exemplified in (1)—(4) in this way until more explicit definitions are given later in the paper.

[3] I understand salience as a function of the interlocutors' attention, following [Roberts 2011; Barlew 2014]. A salient referent is at the center of attention. The referents that are part of the current question under discussion (QUD) are necessarily salient.

[4] Contexts given in quotes ("") were presented as stimuli and translated into Northern Khanty along with the target sentence.

[5] See [Muñoz 2019] on articles used with proper names in this way.

(4) Proprial article
wɵntər-en *juχ šɵp sewr-əs*
A.-POSS.2SG wood piece cleave-PST[3SG]
'Andrej cleaved a log.'

Once confronted with such a polyfunctional possessive marker, the natural question to ask is whether it is possible to unify these four different functions under a single **monosemic** lexical entry. Alternatively, should the non-possessive functions be treated **polysemically**, as markers that may be homonymous with the proper possessive but are synchronically independent?[6]

Indeed, this question has been addressed in several studies investigating similar data from other Uralic varieties. Several authors have argued for a monosemic approach, maintaining that (at least some) non-possessive functions can be subsumed under a basic, albeit underspecified, possessive meaning of establishing a relation between two referents [Fraurud 2001; Nikolaeva 2003; Simonenko 2017]. More recently, however, four studies [É. Kiss 2018; É. Kiss, Tánczos 2018; Halm 2018; and Logvinova 2019 on Chuvash (< Turkic)] have taken a polysemic stance, arguing that the non-possessive functions they investigated are in fact **distinct markers grammaticalized from proper possessive suffixes**.

The central claim of this paper is that each non-possessive function of the Kazym Khanty POSS.2SG exponent *-en*/*-an* must be treated polysemically, as an independent marker. To argue for this claim I develop diagnostics that aim to test whether a non-possessive function shows the same morphophonological, morphosyntactic, semantic, and pragmatic behavior as the proper possessive function, as would be expected under a monosemic approach. Using these diagnostics, I show that the associative possessive (2), the salient article (3), and the proprial article (4) **observe different behavior than the proper** POSS.2SG with respect to several parameters. I develop an analysis within the framework of Distributed Morphology [Halle, Marantz 1993] to model this behavior, which allows us to cover the differences between these functions while also accounting for their similarities. Thus, I argue that these functions are **unpossessive markers** that are homonymous with the proper possessive but are synchronically distinct from it.

To set up the context for the argument, I formulate an explicit model of the syntax, morphophonology, and semantics of possessive agreement markers in § 2. In § 3, I discuss some monosemic approaches to data of other Uralic varieties and contrast them with the polysemic treatments by É. Kiss & Tánczos, Halm, and by Logvinova on Chuvash. This discussion leads to the development of diagnostics for unpossessive markers (unpossessives) in § 4.

In sections § 5—7, I apply the unpossessive diagnostics to the associative possessive, the salient article, and the proprial article, arguing that these functions qualify as unpossessives.

In § 8.1, I present an analysis of the four markers within DM using the mechanism of allosemy [Wood 2015; Myler 2016, a.o.], and in § 8.2, I follow it up with an argument for allosemy from the normal workings of grammaticalization based on [Bisang et al. 2020a].

The main results are summarized in § 9 with an outlook for future research.

The rest of this section introduces Kazym Khanty in more detail and provides basic information on its possessive construction and the methodology employed in this study.

1.1. Kazym dialect of Northern Khanty

Northern Khanty is a Uralic language of the Khantyic branch spoken in areas by the Ob' river and its tributaries in the Yamal-Nenets and Khanty-Mansi Autonomous Regions of the Russian Federation [Kaksin 2010]. It is undergoing language shift with less than 10,000 speakers remaining[7]. Semistructured interviews with some 50 Khanty respondents from the Kazym and Juil'sk villages (Beloyarsky district), Khanty-Mansiysk, and Beloyarsky show that only people born before the 1980s speak the language, while the younger generations generally do not [Aristova 2023].

The data presented in the article come from my fieldwork with speakers of the Kazym dialect residing in Kazym, conducted from 2018 to 2023, during joint field trips of the School of Linguistics (HSE University) and

[6] I use the term *marker* loosely to pick out a three-way correspondence between a phonological exponent, a semantic denotation, and a syntactic terminal, see § 2 for theoretical motivation. The distinction between *polysemy* and *homonymy* is, of course, a thorny and theory-dependent issue. Moreover, these two notions do not play a role in the formal analysis developed in § 8. Informally, it is safe to understand *polysemic* as "requiring more than one sense / lexical entry" and *homonymous* as "same in form, but not in meaning".

[7] According to the Russian Census of 2010 [Koshkareva 2016].

the Department of Theoretical and Applied Linguistics (Lomonosov Moscow State University) in 2018—2019 and 2021—2022 under Svetlana Toldova and Alexey Kozlov. The data were collected via context-based semantic elicitation [Matthewson 2004] using Russian and Northern Khanty stimuli with Russian as the metalanguage. The consultants were presented with contextualized stimuli and asked for acceptability judgements regarding particular forms in contexts. Each judgement reported in this article was taken from at least three and at most ten consultants. Overall, thirteen consultants participated in the elicitation. Eight consultants were women, five were men, and they ranged from fifty to seventy-seven years old. All consultants were sequential bilinguals with Russian acquired in school or shortly prior to school. Two consultants acquired Northern Khanty simultaneously with Komi Zyrian. All consultants were born and raised in Kazym dialect-speaking areas, except for one consultant native in the Obdorsk dialect who learned the Kazym dialect in school. All consultants were aware of the goals of this study and were paid for their participation.

1.2. Adnominal possessive construction

Example (5) illustrates the basic adnominal possessive construction of the Kazym dialect of Northern Khanty. The possessor is unmarked and precedes the head noun which is marked with a possessive agreement suffix indexing the possessor's person-number features. The possessor may also be expressed as a null pronoun, *pro*.

(5) *năŋ kăt′-en moś-λ*
you.SG cat-POSS.2SG purr-NPST[3SG]
'Your cat purrs.'

Possessive suffixes distinguish three persons and three numbers (singular, dual, and plural) of the possessor [Kaksin 2010]. This is further discussed in § 2.2.1 where the possessive paradigm is presented in Table 1.

With possessed nouns instead of the regular dual and plural number markers (*-ŋən* [DU] and *-ət* [PL]), special possessed number allomorphs appear (*-ŋəλ* [DU] and *-λ* [PL]) and they trigger morphophonological alternations in possessive markers.

Possessive markers cannot be stacked, even if the second marker is used in a non-possessive function, for example, **amp-ɛm-en* [dog-POSS.1SG-POSS.2SG] (int.) 'my aforementioned dog'.

With lexical (*i.e.*, non-pronominal) possessors, possessive marking may be absent: *waśaj-en amp*/*amp-λ* [V.-POSS.2SG dog/dog-POSS.3SG] 'Vasya's dog'. According to preliminary data [Muravyev et al. 2023; 2024], **the presence of possessive marking in such constructions is dependent on the status of the possessor as Proximate or Obviative** (*cf.* [Nikolaeva, Bárány 2019])[8]. In what follows, I only consider instances of pronominal or null *pro* possessors which obligatorily trigger possessive agreement: *λɯw*/*Ø*$_{3SG}$ *amp-*(λ)* [(s)he/pro.3SG dog-POSS.3SG] 'his/her dog'.

In the next section, I introduce my theoretical assumptions. I intend the framework sketched there to put the argument made in the following sections on a more solid footing, but I believe that the argument in its general form is relevant across theoretical frameworks (and object languages). For this reason, I advise readers more interested in the empirical side of my argument and less inclined to delve into the theoretical technicalities to skip ahead to section 3.

2. Theoretical assumptions

My analysis is couched in Distributed Morphology (DM; [Halle, Marantz 1993]), a non-lexicalist approach to morphology based on the generative Y-model of grammar (see Figure 1 below). DM assumes a syntactic component that builds both word-level and phrase-level hierarchical structures, with Late Insertion of phonological and semantic content.

The derivation of a sentence starts in the narrow syntax where syntactic terminals (heads) from a lexicon called List 1 are assembled into structures via two operations: Merge, combining two syntactic units into a larger syntactic unit, and Agree, copying syntactic features from a unit onto another unit. The heads are devoid of phonological and semantic content [Bobaljik 2017]. Other details of the syntax I assume are pretty much the same as in [Preminger 2014; Longenbaugh 2019; Newman 2021]. In particular, I assume that **syntactic operations are obligatory** but fallible (more on this below).

[8] In languages with obviation (*e.g.*, [Aissen 2001]), third-person nominals within a clause are subdivided into the Proximate and Obviatives. The Proximate is a syntactically privileged, prominent third person participant, as compared to the Obviatives. [Muravyev et al. 2023] hypothesize that only Proximate lexical possessors trigger possessive agreement in Kazym Khanty.

Merge is driven by Merge features. For instance, [·D·] on a head X triggers the Merge of a D element to X, *e.g.*, a D(eterminer)P(hrase) (using the notation from [Heck, Müller 2007]). Agree is driven by agreement probes on heads, *e.g.*, [ ]$_{\textbf{<pers-num>}}$ on a head X triggers Agree with an element bearing person-number features (ϕ-features) in X's c-command domain, following Preminger [2014]. Merge/Agree features that failed to be saturated at the head level (X) project to the phrasal level (X') and trigger Merge/Agree once more [Adger 2003; Béjar, Rezac 2009].

After a syntactic structure is assembled, it is spelled out to the semantic and (morpho)phonological levels (interfaces; Figure 1). Heads are mapped onto semantic denotations and phonological exponents via rules from two lists: the syntax-phonology mapping, Vocabulary (a.k.a. List 2), and the syntax-semantics mapping, Encyclopedia (a.k.a. List 3).

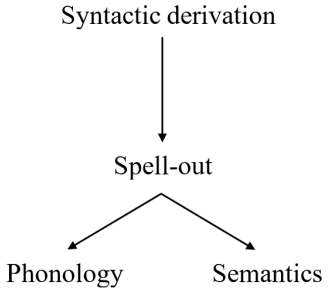


Figure 1. Y-model of grammar (based on [Bobaljik 2017])

Note that in this approach it does not make sense to speak of a single lexical entry for a morpheme or a word, since the lexicon is divided into three lists. This leads to the expectation of one-to-many correspondences between heads and phonological exponents, on the one hand, and between heads and denotations, on the other hand. The former case is allomorphy whereby a single morpheme is exponed by different allomorphs depending on its structural context. The latter case is allosemy, recently explored for functional heads in a DM-based setting by Wood [2015], Myler [2016], Wood and Marantz [2017], and Kasenov [2023], whereby a head is assigned different denotations depending on its (syntactic or semantic) structural context. Both types of syntax-interface correspondence play a significant role in my analysis.

2.1. Syntax of possessives

As is standard in syntactic literature on Uralic possessives (*e.g.*, [Dékány 2021]; *cf.* [Myler 2016]), I assume that possessives head a separate projection in the nominal functional sequence. This projection is called Poss(essive)P(hrase), it takes another nominal projection (NumP) as its complement and introduces the possessor DP as its specifier.

Evidence from the order of nominal modifiers and the order of suffixes in the nominal wordform in Northern Khanty points to PossP being higher than Num(ber)P(hrase) and lower than another functional projection, which for the sake of convenience I will call DP (6). I assume that the DP from (6a) has the structure in (6b).

(6) a. (adapted from [Pleshak 2018: (6)])
tăm ma χɵləm puχ-l-am *armija-ja măn-s-ət*
this I three son-PL-POSS.1SG army-DAT go-PST-3PL
'These three sons of mine joined the army.'[9]

b. [$_{DP}$ tăm [$_{PossP}$ ma [$_{NumP}$ χɵləm [$_{NP}$ puχ] -l] -am] D]

Poss attaches to NumP and takes a possessor DP as its specifier which is achieved with [·Num·] and [·D·] features on Poss (7)[10]. It also bears an agreement probe.

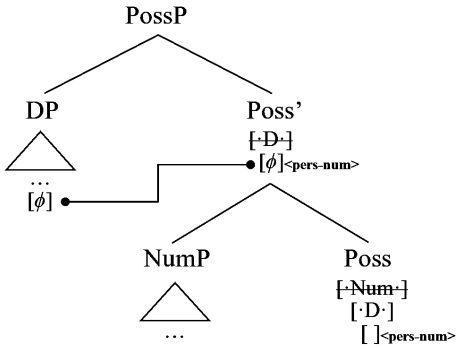
(7) Feature makeup of a proper Poss
Poss: [·Num·][·D·][ ]$_{\textbf{<pers-num>}}$

[9] An anonymous reviewer asks under what conditions plural marking is possible in a numeral-noun construction in Kazym Khanty, since this is generally considered impossible in Ugric languages. Pisarenko [2024: 46] notes that, although relatively uncommon, this pattern is observed with definite subjects. My impression is that (un)possessive marking is also needed for the head noun to be marked plural in the presence of a numeral, not just pragmatic definiteness.

[10] For simplicity's sake, I assume, following [Müller 2010], that Merge features are ordered so that (7) requires the NumP complement to be merged first and the DP specifier second. See [Newman 2021] for pertinent discussion.

This results in the following structure for the Northern Khanty PossP (8). Saturated Merge features are given with a strikethrough and omitted in higher nodes, Agree is represented with a line with bullets.

(8)



With these assumptions in place, we may already account for the fact that Kazym Khanty (un)possessives are in mutual complementary distribution (§ 1.2). This suggests that all (un)possessives occupy the same functional projection, Poss. The technical implementation goes as follows. Proper possessives cannot stack on top of other (un)possessives because they do not host [·Poss·] (7). The same is assumed to hold for the other three unpossessives. (See § 3.2 for possessive stacking in other Uralic languages.)

Finally, let me note that following Preminger [2014], I assume that Agree may fail to find a suitable goal for the probe which, however, does not crash the derivation. This yields a default agreement marker (*e.g.*, 3SG) or a zero exponent on the surface cross-linguistically, and this may occur with different kinds of agreement probes. I assume that this is exactly what happens in Kazym Khanty with an Obviative lexical possessor (as briefly noted in § 1.2 and fn. 8): *waśaj-en*^{obviative} *amp* [V.-POSS.2SG^{obviative} dog] 'Vasya's dog'. The possessive probe requires a Proximate goal, but neither the head noun nor the Obviative possessor is Proximate. Hence, Agree fails and the head noun surfaces unmarked[11].

2.2. Spelling out possessives

2.2.1. Morphophonology

One important feature of DM is underspecification of rules. Consider, for instance, the difference between the two number-conditioned POSS.2SG allomorphs:

(9) Poss[2SG] ↔ -an
Poss[2SG] ↔ -en / Num[SG]__

In (9), *-en* is specified as the allomorph that is inserted in the context of singular number (on the head noun), while *-an* is underspecified in terms of its context of insertion which makes it an elsewhere exponent of $Poss_{[2SG]}$. This is based on the principle that the rule that applies is the rule that matches the context of insertion the best [Bobaljik 2017: (11)—(12)]. Rules in (9) thus reflect that *-an* will only be inserted with dual and plural head nouns (see Table 1). The rest of the paradigm can be dealt with similarly. (Note the syncretisms in this paradigm.)

In § 1.2, I noted that with lexical possessors the head noun sometimes appears without a possessive. I assume that in such cases the possessor is Obviative and the possessive probe only "sees" Proximate possessors[12]. So with Obviative possessors, the probe fails to find any suitable goal and gets sent to the interfaces unvalued: $Poss_{[\ ]}$. This in turn is spelled out simply as zero, leading to the assumption that the elsewhere exponent is ∅. See rule (10o) in the List 2 mapping (**Vocabulary Insertion**) rules for the proper possessive below.

(10) Vocabulary Insertion rules for the proper possessive
a. Poss[1SG] ↔ -am
b. Poss[1SG] ↔ -ɛm / Num[SG]__
c. Poss[2SG] ↔ -an
d. Poss[2SG] ↔ -en / Num[SG]__
e. Poss[1DU] ↔ -əməŋ

[11] For a detailed proposal to Kazym Khanty possessive agreement along these lines, see [Masliukov 2024].

[12] The exact details of how this should be implemented must be developed on another occasion since the syntax of possessive agreement is not our direct concern.

f. Poss[1DU] ↔ -ɛmən / Num[SG]__
g. Poss[1PL] ↔ -əw
h. Poss[1PL] ↔ -ew / Num[SG]__
i. Poss[3SG] ↔ -əλ / Num[SG]__
j. Poss[3PL] ↔ -eλ / Num[SG]__
k. Poss[3] ↔ -aλ / Num[PL]__
l. Poss[3] ↔ ∅ / Num[DU]__
m. Poss[3DU] ↔ -ən
n. Poss[2] ↔ -ən
o. Poss ↔ ∅

Table 1. Possessive suffixes of Kazym Khanty (field data)[13]

Possessor \ Possessee	SG	DU	PL
1SG	*-ɛm* -POSS.1SG	*-ŋəλ-am* -DU-POSS.1SG	*-λ-am* -PL-POSS.1SG
2SG	*-en* -POSS.2SG	*-ŋəλ-an* -DU-POSS.2SG	*-λ-an* -PL-POSS.2SG
3SG	*-əλ* -POSS.3SG	*-ŋəλ* -DU.POSS.3SG	*-λ-aλ* -PL-POSS.3SG
1DU	*-ɛmən* -POSS.1DU	*-ŋəλ-əmən* -DU-POSS.1DU	*-λ-əmən* -PL-POSS.1DU
2DU	*-ən* -POSS.2NSG	*-ŋəλ-ən* (*-ŋəλ-an*) -DU-POSS.2NSG	*-λ-ən* -PL-POSS.2NSG
3DU	*-ən* -POSS.3DU	*-ŋəλ-ən* (*-ŋəλ*) -DU-POSS.3DU	*-λ-ən* (*-λ-aλ*) -PL-POSS.3DU
1PL	*-ew* -POSS.1PL	*-ŋəλ-əw* -DU-POSS.1PL	*-λ-əw* -PL-POSS.1PL
2PL	*-ən* -POSS.2NSG	*-ŋəλ-ən* (*-ŋəλ-an*) -DU-POSS.2NSG	*-λ-ən* -PL-POSS.2NSG
3PL	*-eλ* -POSS.3PL	*-ŋəλ* -DU.POSS.3PL	*-λ-aλ* -PL-POSS.3PL

A few remarks are in order about the various decisions made in (10). Rules (10a—h) are entirely parallel to (9). Rules (10i—l) account for the syncretism found between POSS.3SG and POSS.3PL with dual and plural head nouns by underspecifying the conditions of insertion to simply [3]. (This rule will not apply with [3DU] since it has a more specific exponence rule (10m).) A similar simplification is made in (10n) for POSS.2DU and POSS.2PL which are fully syncretic (unlike POSS.2SG)[14].

I must note that I do not intend (10) as the best imaginable analysis of the proper possessive's morphology. Rather, this is an illustration of what a DM analysis might look like, with a level of sophistication sufficient for our purposes. Perhaps, a more involved analysis could account for more syncretisms in the paradigm in Table 1, but I set it aside in the current paper primarily for space reasons.

2.2.2. Semantics

As for semantics, I will assume with [Vikner, Jensen 2002; Partee, Borschev 2003; Karvovskaya 2018] that the basic semantic contribution of an adnominal possessive construction consists in adding to the head noun predicate a possessor and an "inherent" relation that the referent of the head noun stands in to the possessor. In-

[13] The parenthesized allomorphs are preferred by a small number of my consultants. This interspeaker variation is ignored in what follows and only the more widely used allomorphs (without parentheses) are considered. I thank Daniil Burov (p.c.) for verifying and correcting some datapoints in this paradigm and for helpful discussion.

My field data differs significantly from the possessive paradigm provided in Kaksin's [2010] grammar sketch and not all differences are due to the different transcriptions adopted. My data is very close to the paradigms provided by [Sipos 2022]. There seem to be minor differences with Sipos's consonant stem paradigm.

[14] I am grateful to Alexandra Shikunova (p.c.) for discussing possible analyses with me.

herent relations are stereotypical relations derived from the semantics of the head noun (see [Karvovskaya 2018: § 2.3] and the other papers cited), they are contrasted with "free" relations which are not restricted in this way and may be derived from context.

Thus, I give the proper possessive the denotation in (11), stated as a List 3 mapping (**Sense Insertion**) rule. (I assume a formal semantic system like [Heim, Kratzer 1998].)

(11) Sense Insertion rule for the proper possessive (based on [Karvovskaya 2018: 62])
$[\![\text{Poss}]\!] \leftrightarrow \lambda P_{<e,t>}\lambda x_e\lambda y_e$. POSS(x, y) & P(y)
where POSS is a stereotypical P-based relation

In prose, the proper possessive modifies the complement nominal by adding information about a POSS-relation and a possessor (x) that stands in this relation to the referent of the nominal (y). The details of further semantic composition need not concern us here. What is important is that (11) is more or less a basic possessive modifier denotation: it further restricts the extension of the nominal, but it does not determine its reference (*cf.* [Coppock, Beaver 2015]; see § 6 for evidence that this is so). On the other hand, the unpossessives dealt with below all determine the reference of the nominal they attach to (see sections 6—7).

3. Previous research

3.1. Against the "definiteness idea": monosemic approaches

It has long been observed in the Uralic descriptive literature that Uralic possessives may figure in contexts reminiscent of definite articles (*e.g.*, [Collinder 1957]; see [Nikolaeva 2003] for other references). The idea is essentially that in such functions a possessive is in fact a kind of definite article. Under standard conceptions of definiteness [Heim 1991; Coppock, Beaver 2015; König 2018], this would mean that it presupposes uniqueness and familiarity of the DP referent and is obligatory where these presuppositions are satisfied.

More recently, however, several studies [Nikolaeva 2003; Fraurud 2001, a.o.] have specifically argued against this idea and instead suggested that (some of) the non-possessive functions should be treated monosemically, as stemming from some basic possessive meaning.

Nikolaeva [2003] observes that apart from POSS.3SG and POSS.2SG (12), POSS.1SG markers may also be used non-possessively, specifically, as associative possessives. This is problematic for the definiteness account as it is not clear how the choice of person-number is conditioned. If a possessive truly grammaticalized into a definite article of the kind familiar from European languages, it would not be expected to vary in person-number features.

(12) Obdorsk dialect of Northern Khanty (adapted from [Nikolaeva 2003: 137])
wanta ***tăm mašinaj-en*** *jowra măn-əs*
look this car-POSS.2SG awry go-PST[3SG]
'Look, that car went awry.'

(13) (adapted from [Nikolaeva 1999: 83])
ma ***iśi taxa:j-e:m-na*** *il ko:ri-s-əm*
me same place-POSS.1SG-LOC down fall-PST-1SG
'I fell down in the same place [lit.: at the same my place].'

Instead, Nikolaeva [2003] proposes that Uralic possessives may describe a presupposed **associative relation** between two entities. This results in many familiar referents being marked with possessives as they may frequently be associated either with another referent in the narrative, as in (13) where the speaker has previously been said to have fallen in this place, or to the speech setting via the addressee, as in (12) where "the car is 'yours' because I am talking to you about it" [ibid.: 137]. The possessives are not obligatory in these functions, unlike European definite articles, indicating a lower degree of grammaticalization, if any at all.

Furthermore, according to [Fraurud 2001: 254], some work on Proto-Uralic suggests that definite article-like functions were present already at that stage[15], which also speaks against these functions being a result of grammaticalization.

While a detailed critical overview of the existing monosemic approaches available on the market is certainly a worthwhile enterprise, for the purposes of the present paper it is enough to discuss the general **monosemic prediction** that all of them make (given reasonable background assumptions)[16].

[15] However, see Fraurud's paper for reasonable skepticism and references for this claim.

(14) Monosemic prediction
Non-possessive functions of a possessive must observe the same morphophonological, syntactic, semantic, and pragmatic properties as the proper possessive function of this marker. Any differences must receive an independent explanation.

If the monosemic approaches are on the right track, then it should be the case that the possessive markers they aim to account for are consistent in their morphosyntax, semantics, and pragmatics across functions. In terms of our framework (§ 2), this means that the functions correspond to a single syntactic terminal (Poss), semantic denotation (⟦Poss⟧), and set of exponents (Vocabulary Insertion rules like (10)) — this is the deeper reason for the same surface properties observed according to (14).

Consider, for example, the article-like function of the Komi POSS.3SG marker in (15) (Izhma dialect; Permic group). In this example, it would appear that the marker does not carry its possessive meaning but rather seems, like the English definite article, to be marking a globally unique entity.

(15) Izhma dialect of Komi (adapted from [Simonenko 2017: 428])[17]
šondy-*(ys) *źeb-s'-i-s*
sun-POSS.3SG set-DETR-PST-3SG
'The sun has set.'

The monosemic approach must claim that this seemingly divergent semantic behavior is derivable from the basic possessive meaning. For instance, the possessive marker links the referent to the whole world which acts in place of a more prototypical possessor [Fraurud 2001]. Fraurud suggests that possessives differ cross-linguistically in whether they admit abstract possessors of this kind. However, it seems that none of the monosemic proposals on the market provide independent evidence for the availability of such abstract possessors or, for that matter, an explicit account of how such an abstract possessor enters the derivation to compose with a possessive deriving the correct reading.

There is, I believe, yet a tougher challenge for monosemic approaches, namely, the morphophonological and morphosyntactic divergence of non-possessive functions from the proper possessive one. As far as I am aware, the proponents of monosemic approaches have not yet considered data of this kind.

In what follows, we will see that the challenge offered by such data proves insurmountable to monosemic approaches as it stands in stark contradiction to the monosemic prediction (14).

3.2. For polysemic approaches

Recently, four papers [É. Kiss 2018; É. Kiss, Tánczos 2018; Halm 2018; Logvinova 2019] have adduced data from morphosyntax, taking a polysemic stance on several possessive markers and investigating their synchronic distribution and diachronic development.

Thus, É. Kiss and Tánczos (2018) analyze the three functions of the Udmurt *-jez* marker: cross-referencing a possessor, encoding partitive specificity, and marking specific objects. They argue that the latter two functions are synchronically independent from the proper possessive function of the marker and represent subsequent stages of a grammaticalization path. In another paper [É. Kiss 2018], it has been shown that grammaticalization along the same path had taken place in Hungarian with two partitive markers developing from a POSS.3PL and a POSS.3SG possessive.

The crucial arguments for the independence of these non-possessive functions in Udmurt are based on two observations. Firstly, the partitive *-jez*, used as a nominalizer, **does not agree in person-number features** with the supposed possessor. Thus, in (16b) with a plural possessor, it is expected that the POSS.3PL marker *-zy* will be used, but in the case of an elided head noun the *-jez* marker is used instead, clearly not agreeing in number with the possessor ('boys'). Similarly, in (17), there is an agreement mismatch with a first-person singular possessor, suggesting that *-jez* here is not a possessive agreement marker.

(16) Udmurt (adapted from [É. Kiss, Tánczos 2018: 736])
a. *Ivan-len gurt-ez* → ***Ivan-len-ez***
Ivan-GEN village-POSS.3SG Ivan-GEN-POSS.3SG
'Ivan's village' 'that of Ivan'

[16] See also the discussion of monosemic studies in [É. Kiss, Tánczos 2018: 239—240].

[17] Here and below * marks ungrammaticality and # marks infelicity. % indicates that some speakers accepted the marked expression, but others did not. An asterisk (*) outside of brackets *(X) indicates that omission of the bracketed material results in ungrammaticality and vice versa for (*X). The same holds for other acceptability signs.

An anonymous reviewer suggested some corrections to the Izhma dialect transcription in (15) which I have adopted.

b. *pi-os-len* *gurt-zy* → ***pi-os-len-ez***
boy-PL-GEN village-POSS.3PL boy-PL-GEN-POSS.3SG
'the boys' village' 'that of the boys'

(17) (adapted from [ibid.])
Ta-iz *solen* *mašina-jez,* *noš* *ta-iz* *mynam* — *ojdo* *mynom*
this-POSS.3SG that.GEN car-POSS.3SG but this-POSS.3SG I.GEN PTCL go.FUT.1PL
mynam-en-yz
I.GEN-INS-POSS.3SG
'This is his car, and that is my one — let's go with my one!'

Secondly, a restricted class of nouns triggers the *-yz* allomorph of the proper possessive *-jez* (*Saša-len puny-jez* [S.-GEN dog-POSS.3SG] 'Sasha's dog', but *Saša-len ki-yz* [S.-GEN hand-POSS.3SG] 'Sasha's hand'), but **the accusative *-jez* does not use the special allomorph with these nouns** (although it does use it with plurals just like the proper possessive)[18]. Thus, in (18) an accusative-marked 'hand' receives the *-jez* allomorph, while a POSS.3SG-marked 'hand' receives the *-yz* allomorph. This clearly shows that the two markers are morphophonologically distinct. In our terms from § 2, they have different Vocabulary Insertion rules, as sketched in (19).

(18) (adapted from [ibid.: 738])
a. *Śekyt* ***ki-jez*** *operirovaťʹ* *karyny*
hard hand-ACC to.operate make.INF
'It is hard to operate the hand.'
b. *Solen* ***ki-yz*** *ćeber*
she/he:GEN hand-POSS.3SG nice
'His/her hand is nice.'

(19) a. Poss[3SG] ↔ -jez
b. Poss[3SG] ↔ -yz / {√HAND, …}__
c. Case[ACC] ↔ -jez

These observations lead É. Kiss and Tánczos to treat these functions as independent from the proper possessive *-jez*, since if the markers used in (16), (17), and (18a) were instances of the proper possessive, they would be expected to observe the same morphosyntactic and morphophonological properties as in the proper possessive function, which is not the case.

Finally, it is interesting to observe that the Udmurt accusative case unpossessive may combine with proper possessive morphemes, including the POSS.3SG *-jez* that it grammaticalized from.

(20) a. (adapted from [ibid.: 735])
Mon *Saša-leś* ***agaj-z-e*** *utćaj*[19].
I Sasha-ABL brother-POSS.3SG-ACC search.PST.1SG
'I searched for Sasha's brother.'
b. [$_{\text{CaseP}}$ [$_{\text{PossP}}$ Saša-leś [$_{\text{NP}}$ agaj] -z] -e]

Here, both the POSS.3SG possessive and the accusative undergo morphophonological alternations, so that the former surfaces as *-z* instead of *-jez* and the latter as *-e* instead of *-jez*. (Thus, we have another instance where the accusative unpossessive shows distinct allomorphy.) The fact that **possessive stacking** of this sort is possible with the accusative unpossessive further shows that it is independent from the proper POSS.3SG: it occupies a separate slot of the nominal morphological template. In present terms, this suggests that the accusative *-jez* occupies a distinct nominal projection above Poss (*cf.* § 2.1), for instance, Case as sketched in (20b), and it is subject to Poss-conditioned allomorphy. See [Logvinova 2019] for similar observations on the third-person possessive in the Maloe Karachkino dialect of Chuvash (< Turkic) which also shows different allomorphy, allows for possessive stacking, and does not exhibit agreement in non-possessive functions (with nominalized adjectives and partitive-specific / anaphorically accessible referents).

Another paper proposing a polysemic view on a non-possessive function of a possessive is [Halm 2018] who investigates the negative affective demonstrative (NAD) function of the Hungarian POSS.3SG (21).

[18] Apart from plurals, É. Kiss and Tánczos [2018: 734] also list the instrumental, elative, translative, and egressive case endings as contexts triggering the *-yz* allomorph. Presumably, this is the reason for the partitive *-jez* surfacing as *-yz* in (17).

[19] The possessor of the direct object is assigned ablative case instead of genitive [É. Kiss, Tánczos 2018: 735].

(21) Hungarian (adapted from [ibid.: 362])
A hülyé-je!
the stupid-POSS.3SG
'That total idiot!' [lit. 'its stupid']

According to Halm, NAD is not possessive since **there is no possessor present**[20]. Even a null *pro* possessor cannot be assumed here since there is no anaphorically or deictically available antecedent for it [ibid.: 362].

Furthermore, NAD behaves syntactically like a demonstrative in that (i) **it is in complementary distribution with the other demonstratives** (22) and (ii) it obligatorily requires a definite article like the other demonstratives.

(22) (adapted from [ibid.: 364])
Hallottad, hogy {az a marha / a marhá-ja /
heard that$_{COMP}$ that$_{DEM}$ the cow / the cow-POSS.3SG /
****az a marhá-ja**} már megint mit csinált!?*
that$_{DEM}$ the cow-POSS.3SG yet again what did
'Have you heard what that fool has done again!?'

Based on these observations, Halm [ibid.: 387] proposes that NAD was reanalyzed as a Det(erminer) head. This explains its complementary distribution with other demonstratives, which are assumed to initially Merge in the same projection (*cf.* [Dékány 2021: § 3.2.2; also compare § 2.1] of the present paper).

Morphosyntactic evidence of the kind adduced in [É. Kiss 2018; É. Kiss, Tánczos 2018; Halm 2018; Logvinova 2019] presents very clear arguments in favor of treating non-possessive functions of several possessives as independent unpossessive markers. Building on these arguments, I formulate a set of unpossessive diagnostics that aim to test the monosemic prediction (14) in the following section[21].

4. Unpossessive diagnostics

In this section, I formulate diagnostics for unpossessivehood, i.e., tests that diagnose a non-possessive function of a possessive marker as a synchronically independent marker. The diagnostics probe the similarity of morphophonological, morphosyntactic, semantic, and pragmatic properties of a non-possessive function to the proper possessive function of a marker. In case an instance of differing behavior of the former is found, it can be used to argue that this function is an independent unpossessive. Note that not having a proper possessive reading (at least, intuitively) is a pre-condition for being a candidate unpossessive. It is the correlation between a non-possessive function and a positive result on one of the diagnostics that provides grounds for arguing that it is an independent marker[22].

In some diagnostics below I use *might* to show that an unpossessive does not have to differ from the proper possessive in all its properties to be considered independent. Where applicable, I mention in parentheses relevant examples from the above discussion. Together with the diagnostics, I state the implications of a positive result for the analysis in the current system (from § 2).

(23) Possessive allomorphy
a. An unpossessive might have different morphophonology than the proper possessive, for example, in not having the full range of allomorphs available to the proper possessive or in having special allomorphs of its own (*cf.* (18), (20))
b. *Analysis*: Different set of Vocabulary Insertion rules for the unpossessive (*e.g.*, (19)) which likely also means that it is represented by a distinct head in the syntax.

(24) Possessive stacking
a. An unpossessive might have a different order in the nominal morphological template, meaning that:
i. An unpossessive might stack on a proper possessive or another unpossessive and vice versa (*cf.* (20));
ii. An unpossessive might be in a complementary distribution with another nominal modifier category (*e.g.*, demonstratives) (*cf.* (22)).

[20] This argument was also used in [Logvinova 2019: 109—110].

[21] The current paper is limited to definiteness-based unpossessives, thus largely neglecting unpossessives with syntactic functions and potentially other types. For examples of syntactic unpossessives, see studies on the Chuvash [Logvinova 2019] and Udmurt [É. Kiss, Tánczos 2018; Serdobolskaya et al. 2019] POSS.3SG markers used for nominalizing modifiers in the absence of nominal heads.

[22] See § 8 for a discussion of how negative results in the presence of some positive results should be treated.

b. *Analysis*: Distinct syntactic category (*e.g.*, Det) for the unpossessive. If it attaches outside the proper possessive, it appears higher in the nominal functional sequence. Complementary distribution with another nominal category helps establish the category of the unpossessive (*cf.* [Halm 2018: § 5.2]).

(25) Agreement mismatch
   a. An unpossessive might never vary in person-number features despite the actual features of the supposed possessor (*cf.* (16), (17)).
   b. *Analysis*: No agreement probe on the unpossessive.

(26) Explicit possessor
   a. An unpossessive might not allow an explicit DP-internal possessor under any conditions (*cf.* (21)).
   b. *Analysis*: No [·D·] Merge feature on the unpossessive[23].

Furthermore, I add two diagnostics that did not figure in the discussion above.

(27) Semantic implications
   a. An unpossessive might differ from the proper possessive w.r.t. to its presuppositions[24], for example, the unpossessive may trigger a uniqueness presupposition whereas the proper possessive does not. (*cf.* Hungarian NAD that is necessarily definite [Halm 2018: 364])
   b. *Analysis*: Different semantic denotation for the unpossessive that includes a presupposition not present in the proper possessive denotation.

I also add a pragmatic diagnostic that has not been considered in the studies surveyed above. It is relevant specifically in the case of POSS.2SG unpossessives considered in this paper.

The diagnostic is based on the idea that a possessive construction with a 2SG possessor must pragmatically compete with the same construction with a 1DU (1PL) possessor. An utterance of 'your (SG) dog' in a context where 'our dog' is not ruled out must generate a Q-implicature [Horn 2006] that 'the dog is yours, but not ours'.

While this is expected of proper possessives, a nominal marked with an unpossessive POSS.2SG lookalike will not generate any such implicatures as it is not marked with a possessive affix and hence does not pragmatically compete with possessive-marked nominals.

(28) Pragmatic competition
   a. A 2SG unpossessive must not pragmatically compete with a 1PL possessive so that an utterance of *N*-POSS.2SG 'your N' with the unpossessive will never give rise to a Q-implicature that the alternative with the POSS.1PL is false (i.e., 'your N, but not ours').
   b. *Analysis*: Different semantic denotation for the unpossessive, making it irrelevant for competition of possessive-marked nominals.

I intend the diagnostics presented above to serve as universal tests for establishing which approach should be taken with a particular non-possessive function. I expect that with the addition of new data from unpossessive diagnostics, many of the existing monosemic treatments will have to be abandoned in favor of polysemic ones.

Below, I offer three case studies of non-possessive functions of the Kazym Khanty POSS.2SG exponents *-en*/*-an* where the unpossessive diagnostics provide crucial evidence for a polysemic treatment of the associative possessive, the salient article, and the proprial article.

5. Diagnosing Kazym Khanty POSS.2SG unpossessives

In §1, I introduced the four functions of the Kazym Khanty POSS.2SG exponent *-en*/*-an*: the proper possessive function, the associative possessive function, the salient article function, and the proprial article function.

[23] An anonymous reviewer wonders if this claim is too general, since the [·D·] feature may be saturated not by a possessor DP but by some determiner, for instance, by a demonstrative. In a system like [Newman 2021], this is indeed technically possible. This, then, makes it possible for an unpossessive to bear a [·D·] feature even though it does not admit a possessor DP, which might be due to semantic reasons. The upshot is that the analytical suggestion in (26b) might need to be revised to state instead that the unpossessive in question has a different semantic type than the proper possessive, a semantic type which is one type *e* argument short: *e.g.*, <<*e*, *t*>, <*e*, *t*>> instead of <<*e*, *t*>, **<*e***, <*e*, *t*>>> (the type of the proper possessive in (11)). See § 8.1 for a specific proposal of this kind. There, however, I still assume that the unpossessive lacks [·D·], so its syntactic feature makeup and semantic type work in tandem to exclude possessor DPs. Pursuing here the interesting idea proposed by the reviewer would take us too far afield.

[24] Other implication types may also be relevant, for a taxonomy and relevant tests see [Tonhauser et al. 2013].

Equipped with the unpossessive diagnostics from § 4, we can now test the monosemic prediction (§ 3.1) for each function. Do they observe the same behavior as the proper possessive function? Below I argue that they do not.

For convenience, the predictions of a monosemic approach for each diagnostic are sketched in Table 2. (The differences in semantic implications are discussed in latter sections, where each of the markers is considered in more detail.) See Table 3 in § 7 for a summary of the actual results for each diagnostic, as discussed in the following sections.

Table 2. Predictions of a monosemic approach to each of the Kazym Khanty POSS.2SG functions w. r. t. the unpossessive diagnostics (§ 4)

	Proper possessive	Associative possessive	Salient article	Proprial article
A. Shows allomorphy of (I)[25]	—	Yes	Yes	Yes
B. Allows possessive stacking	No	No	No	No
C. Agrees with the Addressee in number	Yes	Yes	Yes	Yes
D. Admits an explicit possessor	Yes	Yes	Yes	Yes
E. Requires uniqueness (or other implications)	Yes/No	Same as (EI)	Same as (EI)	Same as (EI)
F. Competes with *-ew* [POSS.1PL]	Yes	Yes	Yes	Yes

5.1. Morphological diagnostics

The morphological diagnostics from [É. Kiss, Tánczos 2018; Halm 2018; Logvinova 2019], possessive stacking and different allomorphy, are not relevant for Kazym Khanty.

As mentioned in § 1.2, possessive stacking is impossible regardless of the marker's function. Furthermore, all the morphophonological facts of the POSS.2SG exponent *-en* that I know of are consistent across all its functions. For instance, in all the functions the *-an* allomorph is used with plural (or dual) number marked nouns:

(29) a. *an-λ-an*
cup-PL-POSS.2SG
'your cups / the cups [next to you]' (proper/associative possessive)
b. *amp-λ-an*
dog-PL-POSS.2SG
'your dogs / the dogs' (proper possessive/salient article)
c. *andrej-ŋəλ-an*
A.-DU-POSS.2SG
'your (two) Andrejs / Andrejs' (proper possessive/proprial article)

These morphological facts support the monosemic view: the markers behave the same in the non-possessive functions as in the proper possessive function. However, other diagnostics suggest that this view is not correct for Kazym Khanty.

5.2. Agreement mismatch

The proper possessive agrees in person-number features with the possessor. In the case of a plural (or dual) addressee, the POSS.2NSG marker *-ən* is used instead of *-en* [POSS.2SG].

The same holds for the associative possessive (30).

(30) a. *waśa,* ***soχλ-en*** *møŋχ-e*
V. board-POSS.2SG wipe-IMP.SG>SG
'Vasya, wipe the blackboard.'

[25] I use narrower descriptions of diagnostics in Table 2 for clarity, but the order of diagnostics is the same as in § 4. I suppress irrelevant parts of diagnostics that do not play a role in the following discussion.

Some of the data presented in this and the following two sections were discussed previously in [Mikhailov 2021a; 2021b; 2023]. In [Mikhailov 2021b] I argued for the independence of the salient article based on properties C, D, and F from Table 3 as well as for the independence of the POSS.3SG-lookalike partitive article, not discussed here. In [Mikhailov 2021a; 2023], I argued for the independence of the associative possessive. The current paper provides some additional data on both unpossessives, explicitly formulates the unpossessive diagnostics for the first time, and provides a formal analysis of the four markers discussed here.

b. *ńawrɛm-ət,* ***soχλ-ən*** *møŋχ-a-λən*
child-PL board-POSS.2NSG wipe-IMP-NSG>(N)SG
'Children, wipe the blackboard.'

These data suggest that even if the associative possessive is synchronically independent from the proper possessive, it is still a possessive agreement morpheme. The same is not true of the salient article and the proprial article, however.

Examples (31)—(32) show that even with a plural addressee the two markers still appear as *-en*. The "agreeing" form with the POSS.2NSG marker *-ən* is infelicitous here: it results in a proper possessive interpretation as if the dog belongs to the children.

(31) [A mother is telling her children: "I was walking along the street when I saw a dog."]
amp-en*/*#-ən *ma pɛλ-am-a χurət-ti pit-əs*
dog-POSS.2SG/-POSS.2NSG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
'The dog started barking at me.'

(32) [Andrej is a caretaker in the kindergarten. The parents are going away for the weekend and they tell their children.]
ńawrɛm-ət, nin ***wøntər-en-ən*/*#-ən-ən*** *λawəλ-aj-əti*
child-PL, you.PL A.-POSS.2SG-LOC/-POSS.2NSG-LOC baby.sit[NPST]-PASS-2PL
'Children, Andrej will look after you.'

These data suggest that the salient article and the proprial article are not possessive agreement morphemes themselves which distinguishes them from the two possessives.

5.3. Explicit possessor

The proper possessive admits an explicit DP-internal possessor (see § 1.2 and § 2.1). The other three functions, however, do not.

In (33) with an associative POSS.2SG marked cup, an explicit possessor is infelicitous. Adding it triggers a proper possessive interpretation (*i.e.*, ownership). (Although, see § 6.3 for a caveat.)

(33) [A friend is over at the speaker's place. There's one cup on the table.]
(#năŋ) an-en *mij-e*
you.SG cup-POSS.2SG give-IMP.SG>SG
'Give me the cup.'
Consultant's comment on *năŋ*: "It's like 'give me your cup, don't touch grandma's cup', it should really be your cup".

In (34) and (35) the same is shown for the salient article and the proprial article. Neither admits an explicit possessor. Given an explicit possessor, NPs with these markers are reinterpreted as proper possessive-marked ('your dog/Andrej).

(34) [Context from (31).]
(#năŋ) amp-en *ma pɛλ-am-a χurət-ti pit-əs*
your dog-POSS.2SG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
'The dog started barking at me.'

(35) ***(#năŋ) wontər-en*** *jʉχ šøp sewr-əs*
you A.-POSS.2SG wood piece cleave-PST[3SG]
'Andrej cleaved a log.'

This suggests that the markers used in (33)—(35) have different selectional restrictions than the proper possessive, a different syntax.

5.4. Pragmatic competition

Given standard neo-Gricean pragmatics (*e.g.*, [Horn 2006]), a second-person singular possessive is expected to compete in certain contexts with the first-person dual/plural possessive (28).

For the proper possessive function, the infelicity of POSS.2SG in a context where POSS.1PL is appropriate is demonstrated in (36). The use of POSS.2SG triggers the 'yours, but not ours' implicature just as expected.

(36) [Vasya tells his wife:]
χot_λaŋəλ-ew/#-en *pos-ijəλ*
house_roof-POSS.1PL/-POSS.2SG drip-FREQ[NPST.3SG]
'(Our) roof is leaking.'
Consultant's comment on *-en*: "Then it's only his wife's roof, this is wrong."

The same is shown for the associative possessive in (37). The fact that the speaker and their friend are waiting for the kettle to boil licenses an associative POSS.1DU. An associative POSS.2SG, however, is degraded here as it suggests that only the addressee is associated with the kettle.

(37) [The speaker and their friend are sitting in the speaker's kitchen, tired after a bath. They just put the kettle on fire and they wait for it to boil in silence. The speaker says:]
šajpʉt-ɛmən/%-en *sora* *kawərm-əλ*[26]
kettle-POSS.1DU/-POSS.2SG quickly boil-NPST[3SG]
'The kettle is boiling quickly!'
Consultant's comment on *-en*: "Is it the case that only he [the addressee] needs the kettle or was it only him who put the kettle on the stove?"

The picture is reversed for the salient article and the proprial article.

With the salient article (38), the POSS.2SG exponent is appropriate and does not trigger the 'yours, but not ours' implicature and a POSS.1PL is infelicitous as there are no grounds for claiming that the dog is 'ours'. This suggests that the marker used in (38) is some semantically distinct marker that does not compete with other possessives.

(38) [Context from (31).]
amp-en/#-ew *ma* *pɛλ-am-a* *χurət-ti* *pit-əs*
dog-POSS.2SG/-POSS.1PL I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
'The dog started barking at me.'

With the proprial article (39), a POSS.1PL marker, accepted by some of my consultants, suggests that Andrej is a relative or friend of ours, *i.e.*, has a proper possessive meaning. The same is not the case for POSS.2SG used as a proprial article: in (39) Andrej need not be 'your friend' to receive POSS.2SG marking. And here again no 'yours, but not ours' implicature is observed.

(39) ***wɵntər-en/#-ew*** *jʉχ* *šɵp* *sewr-əs*
A.-POSS.2SG/-POSS.1PL wood piece cleave-PST[3SG]
'Andrej cleaved a log.'

Since the salient article and the proprial article do not pragmatically compete with other possessives, do not agree with the addressee in number, and do not admit an explicit possessor, it is safe to assume that they should be viewed as **unpossessive** markers.

Given that the two articles are independent from the proper possessive, maybe, one may still entertain the prospect of viewing **them** monosemically as **one** unpossessive marker, rather than two? This matter is picked up in § 7, where I argue that the two markers cannot be unified under a single denotation.

In the next section, we turn to further distinguishing the proper and the associative possessive that currently only differ in the availability of explicit possessors.

6. The proper possessive vs. the associative possessive

We saw above that the associative possessive differs from the proper possessive in its reluctance to admit an explicit possessor. In this section I add two more properties that distinguish the proper and the associative possessives: (i) the latter implies uniqueness of the NP referent, while the former does not; (ii) the former cooccurs with the epistemically nonspecific determiner *mulsər*, while the latter does not. Fact (i) is problematic for monosemic approaches since there are no obvious ways to derive this difference from independent sources. (Below I consider and reject a monosemic account that attributes this difference to IOTA-type shifting [Coppock, Beaver 2015].)

[26] In this example, a proper possessive POSS.1SG is also appropriate since the kettle belongs to the speaker. I thank Alexey Kozlov (p.c.) for suggesting this context.

Thus, I argue that the associative possessive is a distinct free possessive definite marker in the sense of [Partee, Borschev 2003][27].

6.1. Uniqueness

One important observation concerning the associative possessive is that its use is obligatory in cases such as (40). Given a unique entity (such as the cup in (40)) that may be associated with another activated referent (such as the addressee in (40)) omitting it leads to infelicity.

(40) [A friend is over at the speaker's place. There's one cup on the table.]
an-#(en) *mij-e*
cup-POSS.2SG give-IMP.SG>SG
'Give me the cup.'

On the other hand, if the entity does not uniquely fit the NP description, an associative possessive is infelicitous (41).

(41) [Context from (40) with several cups.]
an-(#en) *mij-a*
cup-POSS.2SG give-IMP[SG]
'Give me a cup.'
Consultant's comment on *-en*: "[the addressee] will then ask 'Which cup do you mean?'".

The same is true of other person-numbers and is exemplified for POSS.1PL in (42)—(43). Example (44) shows that POSS.1PL is obligatory with the sun presumably via association with the speech community.

(42) [At the family dinner. There's a fish pie and other dishes on the table.]
oλəŋ-əλ-ən *χʉλ-əŋ* ***ńań-#(ew)*** *λɛ-λ-ew*
beginning-POSS.3SG-LOC fish-PROP bread-POSS.1PL eat-NPST-1PL>SG
'Let's eat the fish pie first.'

(43) [Context from (42) with several fish pies.]
oλəŋ-əλ-ən *χʉλ-əŋ* ***ńań-(#ew)*** *λɛ-λ-əw*
beginning-POSS.3SG-LOC fish-PROP bread-POSS.1PL eat-NPST-1PL
'Let's eat a fish pie first.'

(44) ***χătλ-#(ew)*** *ɛtm-əs*
sun-POSS.1PL appear-PST[3SG]
'The sun came out.'

Incidentally, this kind of uniqueness requirement is familiar from European definite articles [Coppock, Beaver 2015; König 2018; Schwarz 2019], which are also obligatory in contexts with unique referents and infelicitous with non-unique referents.

The obligatoriness of associative possessives with unique referents can be accounted for if one assumes that the uniqueness implication is a presupposition and a pragmatic principle such as *Maximize presupposition!* forces the use of presupposing expressions such as the associative possessive in all contexts where their presuppositions are satisfied. This is the strategy used to explain the English definite article's obligatoriness in uniqueness-implying contexts in [Heim 1991; Coppock, Beaver 2015].

Judging from these data, I conclude that the associative possessive requires uniqueness. This, in turn, suggests that the associative possessive may present yet another definite marker type that differs from the other known types [König 2018; Schwarz 2019], a.o.) in also being a possessive marker, requiring a possessor (as discussed in § 6.3 below) and an associative relation salient in the context.

Importantly, **the proper possessive does not require uniqueness**, as the contradiction test from [Löbner 2011] shows below (45).

(45) [A child made a mess in the kitchen. Their parents tell them: "What a mess you made!"]
păsan *θχtij-ən* ***năŋ*** ***juntut-en*** *uλ,* *kər_λaŋəλ-ən* ***năŋ*** ***juntut-en*** *uλ,*
table on-LOC you.SG toy-POSS.2SG lie[NPST.3SG] stove-LOC you.SG toy-POSS.2SG lie[NPST.3SG]

[27] A free possessive marker describes a possessive relation retrieved from the context. Unlike an inherent possessive, it is not restricted to prototypical possessive relations based on the head noun's denotation. See [Vikner, Jensen 2002; Partee, Borschev 2003; Karvovskaya 2018] for an in-depth discussion.

păsan iλpij-ən ***năŋ juntut-λ-an*** *kɛrət′λ′-əλ-ət*
table under-LOC you.SG toy-PL-POSS.2SG lie.around-NPST-3PL
'There's a toy of yours on the table, [a toy of yours] on the stove, under the table your toys are scattered.'

If the proper possessive required uniqueness, example (45) would be contradictory, as the first sentence with the description *năŋ juntut-en* 'your toy' would attribute to the unique toy belonging to the addressee the property of being on the table and the second sentence would attribute it the property of being on the stove, while the third one would imply that there is a unique plural individual consisting of addressee's toys each of which is under the table. This is clearly contradictory. Since (45) is felicitous, the conclusion is that the proper POSS.2SG descriptions in (45) do not presuppose uniqueness.

This is quite unlike the behavior of the English Saxon genitive construction, as in *Mary's pet rabbit*, which presupposes uniqueness in argument positions but does not do so in a predicative position. Coppock and Beaver [2015] attributed this shifting behavior of the Saxon genitive to the IOTA-shift applying in the argument position but not in the predicative position[28].

However, the uniqueness difference observed between the Kazym Khanty associative possessive and the proper possessive cannot be attributed to the IOTA-shift applying to the former, but not to the latter, as it should apply to both equally in argument positions on the theory of Coppock and Beaver[29]. Thus, I conclude that the uniqueness difference must be inherent to the semantics of the two markers which entails that the two markers are distinct.

This difference is fleshed out in the denotation of the associative possessive in (46), where a free possessive semantics [Partee, Borschev 2003] is combined with the standard semantics for definites using ι (see [Coppock, Beaver 2015] for a definition). Compare the proper possessive denotation from (11) which is restricted to inherent relations and is not definite.

(46) $[\![\text{Assoc}]\!] \leftrightarrow \lambda P_{<e,t>}\lambda x_e \iota y_e.\ R_i(x, y)\ \&\ P(y)$
where R_i is a free relation picked up from the context

In prose, the associative possessive applies to a nominal as a combined modifier and determiner: (i) it adds information about a context-dependent relation (R_i) and a possessor (x) that stands in this relation to the referent of the nominal (y) and (ii) it returns this referent y while presupposing that that y is familiar and uniquely satisfies $R_i(x, y)$ and $P(y)$ (which is achieved by ι).

6.2. Non-definite determiners

Unlike the Saxon genitive, Kazym Khanty possessives are not incompatible with various determiner-like elements (determiners): *e.g.*, they combine with demonstratives (47) (repeated from (6a)).

(47) (adapted from Pleshak 2018: (6))
tăm ma χɵλəm puχ-λ-am *armija-ja măn-s-ət*
this I three son-PL-POSS.1SG army-DAT go-PST-3PL
'These three sons of mine joined the army.'

Based on the above conclusion that the associative possessive requires uniqueness, one might expect associative possessive-marked nominals to be incompatible with any indefinite determiners.

While this paper is not the place to fully test this prediction, I note that it is confirmed for the case of *muλsər* 'some', the epistemically nonspecific determiner [Farkas, Brasoveanu 2019: 12]. In (48), the context only supports an associative possessive interpretation but due to the presence of *muλsər* possessive marking becomes infelicitous.

(48) [Context from (41) with several cups.]
muλsər an-(#en) *mij-a*
some.EN cup-POSS.2SG give-IMP[SG]
'Give me some cup [no matter which].'

[28] The IOTA-shift is one of the type-shifting operations that apply to predicate-type nominals (type $<e, t>$) to yield argumental types (type e or type $<et, t>$). Coppock and Beaver [2015: 378] describe it thus: "IOTA shifts a predicate into the unique satisfier of this predicate." See [ibid.] for details.

[29] An anonymous reviewer doubts that the DPs in (45) occur as arguments of the predicate. Instead, they suggest that "the sentences appear to be existentials and if so, the argumenthood of the phrase 'your toy' is questionable. It rather makes part of the predicate" (sic!). If I understand correctly, this suggestion implies pseudo-noun incorporation (PNI; [Dayal 2011]) of the subject DPs in (45). If so, we can safely rule this option out, since Tiutiunnikova (2024) has shown that Kazym Khanty only allows PNI of direct objects. Therefore, I contend that the DPs in (45) occupy the standard subject position and are interpreted as normal arguments, not as a part of the predicate.

The proper possessive, on the other hand, freely cooccurs with *mulsər* (49).

(49) [The speaker is at a friend's place.]
mulsər an-en *mij-a*
some.EN cup-POSS.2SG give-IMP[SG]
'Give me any cup of yours.'

This contrast directly follows from the fact that the associative possessive is definite (46) and is thus incompatible with the indefinite *mulsər*, while the proper possessive is a mere modifier compatible with any determinacy as captured by the semantics proposed for it in (11).

6.3. Explicit possessor

One final observation concerning the associative possessive relates to the correlation between explicit DP-internal possessors and proper possessive interpretations (see § 5.3).

Contrary to the conclusion of § 5.3, the associative possessive **does admit** explicit possessors given sufficient context, *e.g.*, introducing a contrast on the possessor, as in (50) where two dogs are contrasted with respect to which possessor stands in an associative relation with them.

(50) ["Both Petya and I have been attacked by a dog recently."]
ma amp-ɛm *wɛra pălʌtap wə-s*
I dog-POSS.1SG very scary be-PST[3SG]
'My dog was very scary. [But Petya's dog even turned out to be rabid.]'

The proper description of the associative possessive's syntax then is that it **disprefers** explicit possessors but does not rule them out entirely[30]. The differences between the two markers will be summarized in Table 3 after we have distinguished the salient article and the proprial article in the next section.

7. The salient article vs. the proprial article

At this point, one may still entertain the hope of unifying at least some of the Kazym Khanty POSS.2SG non-possessive functions. To answer this worry, I show that the Kazym Khanty proprial article differs from the Kazym Khanty salient article exactly as the proprial article in English differs from the English definite article under [Muñoz 2019]'s analysis. Unlike the salient article, the proprial article is rigid [Kripke 1980] and so it may never vary in reference in the scope of world- or time-intensional operators (such as a modal verb or a frequency adverb).

7.1. Introducing the two markers

The two markers are illustrated below (with examples (51)—(52) adapted from § 1). These examples show that in either case omitting the marker results in infelicity. With the salient article, this gives rise to an anti-familiarity inference that some other dog is being talked about in the target sentence. With the proprial article, the unmarked form is simply barred.

(51) [Context from (3).]
amp-#(en) *ma pɛl-am-a χurət-ti pit-əs*
dog-POSS.2SG I at-POSS.1SG-DAT bark-NFIN.NPST become-PST[3SG]
'The dog started barking at me.'
Consultant's comment on ∅: "Then it's some other dog, not clear which."

(52) ***wəntər-*(en)*** *jʉχ šəp sewr-əs*
A.-POSS.2SG wood piece cleave-PST[3SG]
'Andrej cleaved a log.'

The obligatoriness of the two markers suggests an analysis in terms of *Maximize Presupposition!* as in § 6.1. A plausible hypothesis is that the salient article presupposes the existence of a unique referent and its salience in the context, while the proprial article presupposes the existence of a familiar referent bearing the name denoted

[30] This is probably due to information-structural restrictions on activated referents since Khanty is an extensive *pro*-drop language. I leave further exploration of this idea for another occasion.

by the proper noun (*cf.* Muñoz [2019]). (See [Mikhailov 2024] for a paper-length discussion of the salient article's semantics.)

The minimal pair in (53) shows that the salient article does not simply mark familiar referents, such as the only hospital of the Kazym village discussed in these examples, but it requires the referent to be salient (*cf.* [Barlew 2014] and fn. 3), and it is barred with non-salient focused referents (53b).

(53) a. ["Does the hospital stand at the beginning of the village or in the middle of the village?"]
polʲńica-#(en) *woš* *olʲəŋ-ən* *oməs-λ*
hospital-POSS.2SG village beginning-LOC sit-NPST[3SG]
'The hospital stands at the beginning of the village.'

b. ["What stands at the beginning of the village?"]
polʲńica-(#en) *oməs-λ*
hospital-POSS.2SG sit-NPST[3SG]
'The hospital stands [there].'

On the other hand, the proprial article does not appear to have similar restrictions since it does mark human names even when they are not salient. This is demonstrated in (54), repeated with adjustments from (32), where the context sets up an (implicit) question under discussion along the lines of "Who will look after the children while the parents are away?" Andrej is not salient here, as he was not mentioned in the preceding context, but he is still marked with the proprial article.

(54) [Context from (32).]
ńawrɛm-ət, nin ***wɵntər-en-ən*** *λawəλ-aj-əti*
child-PL, you.PL A.-POSS.2SG-LOC baby.sit[NPST]-PASS-2PL
'Children, Andrej will look after you.'

7.2. The proprial article derives rigid DPs

7.2.1 Muñoz [2019] on English

Muñoz [2019] has argued that English names are marked with an unpronounced proprial article akin to those of the languages that use a dedicated morpheme for it (see the references in [ibid.]). Muñoz adopts the hypothesis that names denote predicates like common nouns do (type $\langle e, t \rangle$) and, thus, require a proprial article to become arguments. The proprial article makes a name rigid, returning the referent which is presupposed to bear the name at the world of use (making the DP type *e*). This does not happen in vocative and predicative positions since they do not require type *e* DPs, unlike argument positions.

Muñoz shows that proprial article-marked names, unlike names marked with the definite article, **cannot covary with a (modal or temporal) quantifier to denote different referents in different circumstances**. Consider (55) which is uttered in the context of a discussion among teachers: in (55a), the speaker claims that a particular student named Smith always cheats (the same student in different circumstances), while in (55b) the claim is that for every exam situation, the student named Smith cheats (possibly different students in different circumstances). This is because the definite article derives non-rigid DPs [Kripke 1980], while the proprial article derives rigid ones.

(55) a. Smith always cheats.
b. The Smith always cheats. [Muñoz 2019: 7]

7.2.2 Kazym Khanty data

The Kazym Khanty data seem to completely fit Muñoz's profile of the proprial article.
Firstly, the proprial article is barred in vocative and predicative positions (56)—(57).

(56) ***maša*** **/** ****mašaj-en***, *ow-en* *pʉnš-e*
M. / M.-POSS.2SG door-POSS.2SG open-IMP.SG>SG
'Masha, open the door.'

(57) *ma λɵχs-ɛm* *nɛm-əλ* ***lʲ́oša*** **/** ****lʲ́ošaj-en***
I friend-POSS.1SG name-POSS.3SG L. / L.-POSS.2SG
'My friend's name is Liosha.'

Secondly, and most importantly, the proprial article derives rigid noun phrases, which is not the case for the salient article.

Thus, a salient article-marked DP such as the 'dog' in (58) may refer to different dogs in different circumstances. This is confirmed by the acceptability of the continuation given in curly brackets that implies different dogs.

(58) *kašəŋ śos amp šiwalə-t-ɛm-ən* ***amp-en*** *ma pɛλ-am-a χurət-λ*
every hour dog see-NFIN.NPST-1SG-LOC dog-POSS.2SG I at-POSS.1SG-DAT bark-NPST[3SG]
'Every time I meet a dog, the dog barks at me. {Sometimes it is a big dog, sometimes it is a smaller dog.}'

On the other hand, a proprial article-marked name cannot refer to different referents in different circumstances (59a). Instead, an unmarked name must be used to get a non-rigid reading of the DP. (Another option provided by one of my consultants was to use a common NP like *boy named Vasya* (59b).)

(59) ["Every year we give a present to the 4th year student who gets the best grades."]
a. *kašəŋ oλ mojλəpsi wɯjλ´* ***waśa / #waśaj-en***[31]
every year present take[NPST.3SG] V. / V.-POSS.2SG
'Every year the present is taken by a Vasya. {Last year it was Vasya Tas'manow and this year it's Vasya Tarlin.}'
b. *kašəŋ oλ* ***waśa nɛm-əp ńawrɛm*** *śi mojλəpsi wɯjλ´*
every year V. name-PROP child DEM present take[NPST.3SG]
(Same as above.)

Thus, exactly as in English, the Kazym Khanty proprial article derives rigid DPs, while the salient article derives intensionally variable DPs.

Based on this difference and the fact that the proprial article has no salience restrictions (see above), I claim that the Kazym Khanty salient article and the Kazym Khanty proprial article are mutually independent and must be treated as distinct morphemes[32]. The differences are summarized in Table 3 in the next section.

8. Capturing the facts in DM

8.1. The analysis

So far I have made the following claims regarding the differences and similarities between the markers under discussion (see Table 3 for a summary of the empirical generalizations):

1. The two possessives (the proper possessive and the associative possessive) are semantically distinct but morphosyntactically largely equivalent.
2. The two articles (the salient article and the proprial article) are morphosyntactically different from the two possessives but similar to each other.
3. The two articles **are** different semantically.

The simplest possible story would claim that each marker is represented with a distinct Poss head subscripted with a distinguishing feature (*e.g.*, $\text{Poss}_{[\text{Poss}]}$, $\text{Poss}_{[\text{Assoc}]}$, $\text{Poss}_{[\text{Sal}]}$, $\text{Poss}_{[\text{Prop}]}$) and, possibly, with further differences in the feature makeup. Each head would have a dedicated set of spell-out rules for both interfaces and that's that.

[31] An anonymous reviewer asks whether a focused agent is expected to require a passive construction in an example like (59a). In the Kazym dialect, a focused agent does not necessarily require a passive construction as documented by Muravyev, *e.g.*, in [Muravyev 2023]. In (59), the fact that the agent is animate, and the patient is inanimate is enough to maintain an active construction.

The reviewer also wonders about the validity of this example. This example was approved by three consultants, one of whom used the passive of the verb *măti* 'to give' instead. Another example demonstrating that proprial article-marked names cannot refer to different referents in different circumstances received the judgements of four more consultants. Overall, the judgements of seven different speakers of the Kazym dialect show that proprial article-marked names are indeed rigid as (59) is intended to show.

[32] I forego spelling out a detailed semantics for the two markers. The interested reader is referred to [Mikhailov 2024] for a semantic analysis of the salient article and to [Muñoz 2019] for the proprial article. I expect that something along those lines would be appropriate for the two Northern Khanty unpossessives, which would mean that both have the type $\langle et, e \rangle$ (or something equivalent). Below, I give dummy denotations for the salient article and the proprial article using the labels ⟦Sal⟧ and ⟦Prop⟧ respectively.

Table 3. Unpossessive diagnostics (§ 4), results for each of the Kazym Khanty POSS.2SG functions

	Proper possessive	Associative possessive	Salient article	Proprial article
A. Shows allomorphy of (I)	—	Yes	Yes	Yes
B. Allows possessive stacking	No	No	No	No
C. Agrees with the Addressee in number	Yes	Yes	No	No
D. Admits an explicit possessor	Yes	Heavily restricted*	No	No
E. Requires uniqueness (or other implications)	No	Yes	Yes	Yes
F. Competes with *-ew* [POSS.1PL]	Yes	Yes	No	No
G. Admits interpretations beyond prototypical possessive ones	No	Yes	Yes	Yes
H. Requires salience	—†	—†	Yes	No
I. Derives rigid noun phrases	—†	—†	No	Yes

* — explicit possessor only available under contrast (§ 6.3)
† — in the interest of space, these data were not included in this paper[33]

However, such a story is not very convincing as it ignores two facts. First, the proper possessive and the associative possessive have fully equivalent paradigms. Second, the salient article and the proprial article have the same allomorphs *-en*/*-an* as the 2SG exponents of the proper and associative possessives. Do we really have to assume that a Kazym Khanty speaker's language competence contains redundant rules for these markers?

I believe that we do not. There is a more minimal account one can formulate granted the DM mechanism of allosemy. Recent work by [Wood 2015; Myler 2016; Wood, Marantz 2017; Kasenov 2023] has fruitfully explored allosemy of functional heads, whereby one head may map onto several distinct senses. These authors argued that this provides insightful accounts of predicative possession, argument introducing heads, modal ambiguities, and other phenomena.

Thus, we are enabled to account for the morphosyntactic similarity between the proper and the associative possessives by saying that they simply *are* the same head, $\text{Poss}_{[\text{Poss/Assoc}]}$. This head has a single set of Vocabulary Insertion (List 2) rules, discussed in § 2.2.1 which gives the full possessive paradigm, and two Sense Insertion (List 3) rules: one mapping to the proper possessive semantics (11), the other to the associative possessive semantics (46). The choice between the two List 3 rules is free. Under this account there is no question as to why the proper and the associative possessives have equivalent paradigms — it is **the same** paradigm, *i.e.*, the same set of List 2 rules.

The same reasoning goes for the pair of the salient and the proprial articles. Neither of the two markers selects for a possessor or Agrees with one. Both have the two allomorphs *-en*/*-an* (which are not dependent on ϕ-features). This is because they simply **are** the same head, $\text{Poss}_{[\text{Sal/Prop}]}$, with a single set of List 2 rules and with two List 3 rules chosen freely.

Thus, I propose the following syntactic terminals and spell-out rules for our four markers (60)—(62). (The syntactic and morphophonological details are as in § 2.)

(60) Syntactic terminals
  a. Poss: [Poss/Assoc][·Num·][·D·][ ]$_{\text{<pers-num>}}$
  b. Poss: [Sal/Prop][·Num·]

(61) Vocabulary Insertion rules
  a. $\text{Poss}_{[\text{Poss/Assoc}][\phi]}$ is spelled out depending on the ϕ-features that it bears after Agree, as in (10).
  b. $\text{Poss}_{[\text{Sal/Prop}]} \leftrightarrow$ -an
  c. $\text{Poss}_{[\text{Sal/Prop}]} \leftrightarrow$ -en / Num[SG]__

(62) Sense Insertion rules
  a. $\text{Poss}_{[\text{Poss/Assoc}]} \leftrightarrow [\![\text{Poss}]\!]$ (see (11))
  b. $\text{Poss}_{[\text{Poss/Assoc}]} \leftrightarrow [\![\text{Assoc}]\!]$ (see (46))
  c. $\text{Poss}_{[\text{Sal/Prop}]} \leftrightarrow [\![\text{Sal}]\!]$
  d. $\text{Poss}_{[\text{Sal/Prop}]} \leftrightarrow [\![\text{Prop}]\!]$
  (see fn. 32 for a suggestion about the latter two denotations)

With this analysis, we maintain the claim that the four markers are synchronically independent **with respect to their semantics**: there is a distinct denotation for each marker in (62). At the same time, we account for some

[33] The facts are that the proper and the associative possessive do not require salience and do not derive rigid DPs.

of their similarities and differences. There are two syntactic terminals behind the four markers (60): both select a number-marked nominal (via [·Num·]), but only one of them introduces a possessor and an agreement probe (via [·D·][ ]$_{\langle \textbf{pers-num} \rangle}$), the other one does not. Each terminal has a single set of List 2 rules for spell-out to morphophonology (61). The first terminal accounts for the morphosyntax of the proper and the associative possessives, and the second terminal accounts for the salient and the proprial articles.

On the semantic side, we have **free allosemy**. There are two Sense Insertion rules in (62), one for each terminal, but neither is underspecified with respect to the other. Hence the choice of one over the other is not forced and either of the two denotations is freely inserted into its corresponding terminal during the spell-out of syntactic structure to semantics. This is the account that I propose.

8.2. Is this the best we can do?

Before we conclude there are two concerns to address. First of all, why not say that there is only **one** head which maps onto a possessive (62a—b) if it bears ϕ-features and onto an article (62c—d) if it does not? Secondly, what about the full equivalence of the two articles' allomorphs and the two possessives' 2SG allomorphs *-en*/*-an*? As it turns out, the two questions are connected. Let us turn to the first one.

There are two reasons why one cannot assume a single Poss head. First, the two articles do not select or admit a possessor DP. Under the obligatory operations view of syntax that I committed myself to in § 2.1 (following [Preminger 2014] and others), there is no way for a Merge feature [·D·] to not trigger the Merge of a possessor DP. And if a possessor DP **is** Merged it must somehow contribute to the meaning of the whole possessive nominal, resulting in a type mismatch, since the two articles' denotations are not suited to compose with a possessor DP. Additionally, such a possessor DP must always stay implicit as we never find overt possessor DPs with the two articles. However, there is no evidence even for an implicit one. Thus, it seems that a [·D·] feature with the two articles runs us into theoretical and empirical problems that require us to abandon the well-motivated obligatory operations view and/or to include ad hoc assumptions. I maintain that the Poss head behind the salient and the proprial articles does not bear a [·D·] feature.

The second reason to not assume one Poss head is that the salient and the proprial articles **look** like 2SG possessives but show no traces of bearing [2SG] ϕ-features and, therefore, cannot be spelled out with the rules from (10) that map Poss$_{[2SG]}$ onto *-en*/*-an*. One also cannot assume that *-en*/*-an* is the most underspecified possessive exponent since, as discussed in § 2.2.1, the absence of ϕ-features is exponed as $\emptyset$. To sum up, the salient article and the proprial article cannot be assumed to bear [·D·], [ ]$_{\langle \textbf{pers-num} \rangle}$, or any ϕ-features in the syntax which is why they need a dedicated syntactic terminal and Vocabulary Insertion rules.

So how about their allomorphy? Do we just ignore that the allomorphs are the same as for 2SG possessives? Synchronically, I believe, we have no choice, for the reasons just discussed. But I do not think that that is a weakness of the present account. There is a natural diachronic explanation for this fact.

It seems reasonable to hypothesize that the salient article and the proprial article grammaticalized from 2SG possessives[34]. And this is why they inherited their allomorphs. In fact, this is something amply documented for grammaticalization cases across the world's languages. Roughly speaking, grammaticalization processes involve a semantic reanalysis of a form/construction in a specific context where its base meaning and its goal meaning overlap. Whether a change in phonological form follows the change in meaning is a separate issue. It is by no means a necessity.

Based on a statistical analysis of 1003 grammaticalization paths, Bisang, Malchukov and colleagues [Bisang et al. 2020a] show that in numerous cases **changes in Lehmann's [2002/2015] parameters of grammaticalization do not cooccur**. That is, the semantic, morphological, phonological, and syntactic changes that can take place during grammaticalization do not necessarily go hand in hand. For instance, one might have semantic erosion (loss and generalization of meaning/semantic integrity) without loss of phonological material. Indeed, [Bisang et al. 2020a: 41 and § 3.4] observe that there is no correlation between semantic erosion and phonetic reduction. The overall conclusion that Bisang, Malchukov et al. reach is:

> "Semantic Integrity seems to involve stronger interactions with function-related parameters such as Paradigmaticity and Syntagmatic Variability, while Phonetic Reduction only shows a strong correlation with Bondedness" [ibid.: 47][35].

[34] Arguably, this is a very slight step in grammaticalization since both the source marker and the target marker are bound, abstract in meaning, etc. Nevertheless, this is still genuine grammaticalization according to Lehmann's [2002/2015] parameters of grammaticalization, as discussed below.

[35] Paradigmaticity concerns the size of the paradigm and its degree of formal homogeneity, and syntagmatic variability concerns freedom of linear order. See [Bisang et al. 2020b] for details.

In the case of the salient article and the proprial article along with the change in meaning, we have a reduction of paradigmatic complexity (paradigmaticity), since only "one row" of the source paradigm is preserved, but the allomorphy stays the same.

It seems quite natural that the implications of this **partial grammaticalization** for the synchronic competence of a speaker are also in a way partial, and allosemy (as in (62)) provides a good way to model this. This is especially so in the case of the proper possessive and the associative possessive. The only thing that they differ in is their semantics. They have the same syntax and morphology, and this is completely in line with what we know about grammaticalization.

Thus, I contend that the present account provides an interesting take on what grammaticalization means for formal theories of synchronic grammar. Lehmann's [2002/2015] parameters of grammaticalization may be seen as resulting from changes to one of the three Lists, and they do not have to happen in parallel. Semantic reanalysis without phonological or paradigmatic change simply means that a new Sense Insertion rule becomes available. Phonological or paradigmatic change further implies changes in the syntactic terminal and in List 2 rules (compare the case of the Udmurt accusative *-jez* discussed in § 3.2 where changes to all three Lists presumably occurred).

In the case of Kazym Khanty POSS.2SG unpossessives, we have three instances of grammaticalization along the following lines:

1. The proper possessive develops a new Sense (62b). → The associative possessive appears.
2. One of the possessives develops a new Sense (62c) and loses syntactic features along with paradigmatic complexity (60b)—(61b—c). → The salient article appears.
3. The salient article develops a new Sense (62d). → The proprial article appears.

Aspects of a target marker that were not affected in the above steps remain the same as in the source marker.

The grammaticalization chain just sketched serves as an illustration for the DM—grammaticalization connection that I wanted to draw. Of course, this is not the only imaginable scenario. A serious grammaticalization proposal requires much more (*cf.* [É. Kiss, Tánczos 2018; Halm 2018], but this is not the place to make one. My goal in this subsection was to argue that the apparent weaknesses of the proposed analysis are a natural consequence of how grammaticalization works[36].

9. Conclusions

In this paper, I argued that the non-possessive functions of the Kazym Khanty POSS.2SG marker must be treated polysemically, as **unpossessive markers** homonymous with, but synchronically independent from the proper possessive. This was done using the **unpossessive diagnostics** developed specifically for this purpose.

I showed that the behavior of the associative possessive, the salient article, and the proprial article does not conform to the monosemic prediction (discussed in § 3.1) with respect to multiple properties. Thus, **these markers must be diagnosed as unpossessive**.

I presented an analysis of the four unpossessives within DM using the mechanism of (free) allosemy. I argued that the proper possessive and the associative possessive are **different Senses spelling out the same syntactic terminal** (and I claimed the same for the two articles) which explains why they show identical allomorphy and syntactic behavior. I further argued that allosemy is a natural consequence of the normal workings of grammaticalization and, thus, a DM architecture of the sort assumed here provides a good framework for modeling the synchronic results of partial grammaticalization.

If the preliminary analyses of these unpossessives provided along the way are on the right track, the Kazym Khanty determinacy marking system provides a peculiar case where (i) there are no "typical" determiners such as indefinite or (general) definite articles, (ii) there are two definiteness-based markers for common DPs (the associative possessive and the salient article) that have additional restrictions which distinguish them from canonical definite articles [Schwarz 2019], (iii) there is a proprial article for human names that is neither homonymous with a general definite article nor a dedicated morpheme (*cf.* [Muñoz 2019]). Future research must provide detailed semantic analyses for each marker and investigate their pragmatic competition, since the functional coverage of the markers overlaps. Some informal discussion along those lines may be found in [Mikhailov 2023].

The unpossessive diagnostics presented in this paper can and should be applied to data from other Uralic varieties and languages that have non-possessive functions of possessives. I expect that this will lead to the discovery of additional unpossessive markers, thus, opening the route to detailed investigations into their syn-

[36] The analysis presented in this section was influenced by Daniar Kasenov, who introduced me to DM and gave insightful comments, and Timur Maisak, who taught me grammaticalization theory. I am deeply grateful to them both. Naturally, they should not be held responsible for any errors or mistakes here.

chronic semantics and diachronic development paths, as exemplified by [É. Kiss 2018; É. Kiss, Tánczos 2018; Halm 2018; Logvinova 2019]. Ultimately, this could enrich the typology of definiteness and specificity markers [Farkas, Brasoveanu 2019; Schwarz 2019; Muñoz 2019] with previously unattested types.

Abbreviations

Glosses not found in the Leipzig Glossing Rules (https://www.eva.mpg.de/lingua/resources/glossing-rules.php) are as follows:

DETR — detransitive
EP — epenthetic element
FREQ — frequentative
INF — infinitive
NFIN — general nonfinite form
PROP — proprietive
PRT — preterite
PTCL — particle
some.EN — some (epistemically nonspecific).

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