

**Grammaticalization of possessive markers
in the Beserman dialect of Udmurt¹**

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The paper is focused on the functions of possessive suffixes in the Beserman dialect of Udmurt. Considering the data from the Beserman corpus of oral texts we find the parameters influencing the presence/omission of the possessive suffixes in the contexts of possessive (alienable and inalienable) and non-possessive contexts.

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We review the claim about the grammaticalization of the Beserman possessives into markers of definiteness, and suggest that they are subject to pragmaticization in terms of Fried (2009).

1. Introduction

Many languages have special morphemes to encode the characteristics of the possessor (modifier) on the head noun. These morphemes indicate person, number, grammatical role (Uralic and Turkic languages, cf. Tauli 1966: 148, Johanson, Csató 1998; South Ethiopian, cf. Rubin 2010; languages of North America, cf. Mithun 1999: 69), (in)alienability, and/or grammatical class of the head (Oceanic languages, cf. Heine

1997: 14–15, languages of North America, cf. Mithun 1999: 251–259). See (1) from the Beserman dialect of Udmurt: the possessive suffix denotes the 1/2/3 person and singular/plural number of the possessor.

(1) nêl-ê / nêl-êz / nêl-z-ê

girl-P.1(SG) girl-P.3(SG) girl-P.3-PL

‘my / his, her / their daughter or girl’

Possessive morphemes can be used as markers of definiteness, cf. Rubin (2010) for South Ethiopian languages and Collinder (1957: 276), Tauli (1966: 148), Suihkonen (2005), Fraurud (2011) for Uralic languages. Some Uralists even believe the definiteness reading of possessive markers to have existed already in Proto-Uralic (Décsy 1990: 81). Synchronically, there are contexts where they lose their possessive function, while often it is unclear whether the discussed

suffix denotes possession or definiteness, since both meanings are observed:

(2)Baš't-ê nêl-ê têl.

take-IMP.SG girl-P.1(SG) fire

Têl-de en kês.

fire-ACC.P.2(SG) NEG.IMP put.out(SG)

‘My daughter, take the fire. Don’t put out **the/your** fire.’ (CBOT)

The comparison of the relevant data in Schlachter (1960), Nikolaeva (2003), Künnap (2006) and Fraurud (2011) on Standard Udmurt shows that the limits of article-like use in different Uralic languages and dialects vary to a large extent. Thus, for each dialect the question is, to what stage the process of grammaticalization has advanced. Can we analyze the possessive markers in their possessive and non-possessive functions as polysemous forms or as sets of

homonymous forms? The answer to this question requires the investigation of morphosyntactic and semantic restrictions on the use of possessive markers, i.e. their (non-)obligatoriness in the context of different possessive relationships (kinship, ownership, authorship, part-whole relationship etc.) and in non-possessive functions, their (non-)acceptability depending on the lexical properties of nouns (animacy, (in)alienability, class of relator), the grammatical role and referential properties of the NP, as well as its information structure role.

Thus, the issue of the current paper is the grammaticalization stage of the possessive suffixes in the Beserman dialect of Udmurt. This variety is spoken in the Yukamenskoye region of Udmurtia, Russian Federation. Our research is based on data acquired during fieldwork and

through the analysis of the corpus that has been collected and annotated by our team (75.000 tokens, approx. 12 hours; cf. [http://beserman.ru/corpus/search/?interface language=en](http://beserman.ru/corpus/search/?interface_language=en)). The corpus examples are marked as CBOT (Corpus of Beserman Oral Texts), while fieldwork data is left without special reference.

The paper is structured as follows. In section 2 we give the Uralistic background on possessive morphemes. In section 3 we present four paradigms of possessive markers in the Beserman dialect of Udmurt. Then we discuss the obligatoriness and frequency of possessive suffixes in possessive meanings. In section 4 we consider non-possessive meanings of the suffixes and discuss the hypothesis of their grammaticalization as articles.

2. Possessive morphemes in Uralic and in Beserman Udmurt

One of the characteristic typological features of the Uralic languages is the use of possessive markers indicating the person and number of the possessor (Collinder (1957, 1960; Tauli 1966). In Permic languages these morphemes also encode the grammatical role of the NP (cf. (Collinder 1957: 279) for Komi-Zyrian) and in Udmurt they also encode (in)alienability (cf. Winkler 2011, Alatyrev 1983, Yedygarova 2010 on Standard Udmurt). See (1) and (3) from the Beserman dialect of Udmurt: in (3) the alienable possessive suffixes denote the person and number of the possessor, while in (1) the inalienable set of markers is used. Possessive suffixes also encode

the grammatical role of the NP: in 3rd person singular the suffix *-ze* is used for NPs in the direct object position (4), while for other positions the suffix is *-ez* (3). Note that the distinction of (in)alienability is lexicalized to a large extent, see 3.2.

(3)val-e / val-ez / val-mâ...
 horse-P.1(SG) horse-P.3(SG) horse-P.1-PL
 ‘my horse / his horse / our horse’

(4)Sâre š’i-i-z-â **val-ze**,
 then eat-PST-3-PL horse-ACC.P.3(SG)
škura-ze kel’-t’-i-z-â.
 skin-ACC.P.3(SG) be.left-CAUS-PST-3-PL
 ‘Then they ate **his** horse, (and) left **its** skin.’

(CBOT)

In Udmurt NPs, as in other Uralic languages, head marking is combined with modifier marking: modifiers of NPs may be encoded by the genitive

case, e.g. *jetân-len kuro-jez* (lit. flax-GEN1 straw-P.3SG) ‘flax straw’. Another type of NP construction involves juxtaposition, where the modifier occurs without case marking and the head does not take possessive marking, e.g. *âž gon* (lit. sheep hair) ‘wool’. The construction with the modifier in genitive and head without possessive marking is unacceptable:

- (5) *pânâ-len *pâd / ^{OK}pâd-âz*
*dog-GEN1 *leg / leg-P.3(SG)*
 ‘dog’s paw’

The construction with the modifier in nominative and the head with possessive marking is much rarer.

As in other Finno-Ugric languages, in Beserman Udmurt the choice of the NP construction depends on semantic characteristics such as animacy, referential properties of the

modifier and the type of possessive relationship. These parameters are considered in typological works as crucial for the choice of a particular NP construction (Heine 1997; Koptjevskaja-Tamm 2002; Aikhenvald, Dixon 2013).

The extensive use of possessive markers is attested in most Uralic languages. It has been shown, though, that in these languages they develop a range of meanings outside possession as it is defined in Aikhenvald & Dixon (2013). They can mark definiteness (Collinder 1957: 276, Schlachter 1960, Tauli 1966: 148, Suihkonen 2005), partitive specificity (Klumpp 2008: 125–127), categories of information structure (Nikolaeva 2003), discourse categories (Siegl 2015), ethical reference to the addressee (Künnap 2006, Kuznetsova 2003), endearment (Suihkonen 2005, Kuznetsova 2003), vocative

(Winkler 2011: 66). For some languages it has been claimed that possessive markers are in progress of grammaticalization into articles (see, however, Gerland 2014 against the grammaticalization analysis; the author argues that ‘possessive markers’ in Uralic should be analyzed as ‘relational markers’ developing possessive or definiteness readings in different contexts). For example, Schlachter (2006) shows that in Komi the markers of 2nd and 3rd person occur not only in possessive constructions, but also in contexts of anaphoric reference, with unique nouns (‘the sun’, ‘the moon’, etc.) and with the universal quantifier. In these contexts the bleaching of personal semantics is observed, i.e. the 3rd person marker may be used for objects possessed by the speaker or the hearer, and 2^d person marker for the objects possessed by the 3rd person participant. See

Fraurud (2011) and Winkler (2011: 66–67) for similar examples in Standard Udmurt.

However, for some idioms this claim is weakened by the fact that in many “definite” contexts possessive markers may be omitted (Fraurud 2011), and, moreover, they may be used to denote meanings that are not connected to definiteness (or specificity), but rather to categories of information structure (contrast and emphasis, cf. Nikolaeva 2003), discourse categories (a return to the previous topic, afterthought, cf. Siegl 2015), in ethical meaning (Künnap 2006) etc.

Furthermore, for each idiom the questions arise, what stage the process of grammaticalization has reached, and whether it is grammaticalization into articles or in some other function. To draw this

distinction, we must answer to the following questions:

- Are possessive markers obligatory in possessive contexts?
- In what non-possessive contexts do they occur?
- Are they obligatory/frequent/acceptable in contexts of definiteness (specificity)?
- Are the restrictions on the use of possessive markers the same in possessive and non-possessive contexts (for example, are they obligatory/acceptable with animates only / with subjects only / with relational nouns only etc.)?
- Do possessive markers show properties of grammaticalization: phonetic, morphosyntactic change, desemanticization, obligatorification, generalization of grammatic

function etc. (cf. Hopper, Traugott 2003, Lehmann 2015)?

To answer these questions we annotated a fragment of CBOT, which contains around 2000 nouns in total, for a range of relevant parameters, and measured how well individual parameters and the set as a whole predict the appearance of the possessive marker. The results are described in the following sections. Let us note that our research is limited to possessives on nouns. As for pronouns, the possessives are often lexicalized (e.g. the reflexive pronoun *ač'iz* 's/he her/himself') and have a range of functions which require further investigation. Another reservation concerns the form of the possessive marker: as the forms of 1st and 2^d person are relatively rare to find in non-possessive functions, we only annotated the 3rd person singular markers. However, some issues

discussed below apply to 1st and 2^d person markers, as well. These results have not been obtained by annotation, but have been acquired by ‘manual’ corpus study.

3. Distribution of possessive markers with possessive function

3.1. Forms of possessive markers in Beserman

The paradigm of possessive markers in Beserman Udmurt is represented in Table 1.

Person, number	DO set	Non-DO set: inalienable	Non-DO set: alienable
P.1SG	<i>-me</i>	<i>-(j)â / -m²</i>	<i>(j)e</i>
P.2SG	<i>-de / -te</i>	<i>-(j)âd / -d</i>	<i>(j)ed</i>

² The *-m/-d/-z* variant is used after case markers ending in a vowel.

P.3SG	<i>-ze / -se</i>	<i>-(j)âz / -z</i>	<i>(j)ez</i>
P.1PL	<i>-mes</i>	<i>-(â)mâ</i>	
P.2PL	<i>-des / -tes</i>	<i>-(â)dâ / -tâ</i>	
P.3PL	<i>-zes / -ses</i>	<i>-(â)zâ / -sâ</i>	

Table 1. The paradigm of possessive suffixes in Beserman Udmurt³.

As can be seen from Table 1, a separate set of markers is used with NPs in DO position. This set lacks (in)alienability distinction. We will refer to the markers of this set as possessive accusative, while the accusative marker *-ez*⁴ will be termed accusative.

The inalienable set of markers is used regardless of (in)alienability of the noun, if the possessive marker follows any other inflectional affix, i. e. the plural marker *-(j)os-* or one of the

³ We do not give the pronominal set of markers in *-im/ -id/ -iz*, since the present work is only focused on nouns.

⁴ Note that the accusative marker is homonymous to the possessive suffix of 3rd person singular of the alienable set.

case markers (instrumental, locative, illative, relative, terminative, prolative, egressive). In other cases (singular nouns in genitive 1, genitive 2, dative, caritive, adverbial, approximative, recessive and with the localization suffix *domus*), the (in)alienability distinction is preserved, see 3.2. In Beserman this distinction is lexicalized to a large extent (more than in Standard Udmurt as described by Alatyrev 1983: 570, Yedygarova 2010: 42–54, Winkler 2011: 60–62).

3.2. Distribution of alienable and inalienable sets of possessive markers

In Beserman (as in Standard Udmurt) there are three classes of nouns with respect to the form of possessive markers they attach: taking only *-â-* forms, taking only *-e-* forms or taking both

(depending on the idiolect of the speaker). The first group consists of nouns with oblique stems *-k* and *-m*, all relational nouns, some kinship terms and several nouns denoting states and essential attributes. Most body parts, blood, abstract concepts (time, quantity) and parts of objects which are difficult to remove (for example, hull) attach both types of markers. Other nouns, including most kinship terms and all new loanwords, take *e*-markers only. Thus, the ability to attach possessive markers of the (in)alienable set is strongly determined by the type of the stem, of the «age» of the word and partly on the semantic class of the noun. Thus, Beserman has a privative possessive classification in terms of Nichols & Bickel (2013), and Beserman nouns can be claimed to have the (in)alienability distinction with one proviso. The factor that influences the type of the

possessive form of a given noun is not its «semantic (in)alienability» but its semantic class. For example, 85% of kinship terms in CBOT take markers from the *-e*-set whereas only 17% of body parts attach suffixes of this type – and 100% of relational nouns have *-â*- forms. So, the category of inalienability in Beserman is a classifying one in terms of Plungian (2011), i.e. it is distinguished mostly on the basis of formal than of semantic factors.

As for Standard Udmurt, it has been claimed that it has the category of inalienability, and this category has certain semantic basis (Yedygarova 2010). However, we must note that in the Corpus of Standard Udmurt (ca. 8,3 mln of tokens) we could not find a noun that attaches markers from different sets according to the type of the context (e.g., the word *nyl* is always marked as inalienable

one in whatever meaning, ‘daughter’ or ‘girl’). So, lexical determination of the set of possessive marking in Standard Udmurt also seems to be quite strong.

3.3. Obligatoriness and frequency of possessive markers

Fraurud (2011: 251) gives an approximate frequency of possessives in Standard Udmurt texts: possessive suffixes occur on about 30% of the subject NPs and 40% of the object NPs. This figure is much higher than the relative frequency of possessives in English and Swedish (less than 7% of all NPs), which is one of the arguments for the grammaticalization of the possessive markers (whatever their function is). The figures for Beserman are close to Standard Udmurt, i.e. the

percentage is 36% for all the NPs in our corpus sample that includes 2000 nouns.

Winkler (2011: 65) claims that in Standard Udmurt possessives are obligatory in the context of the modifier in genitive. For Beserman this claim must be slightly modified. Consider the following examples:

(6) M^hnam korka **koš'ag-a-m**

I.GEN1 house window-ILL-1(SG)

šukk-iš'k-i-z ž'ârgâl'â.

hit-DETR-PST-3(SG) sparrow

‘A sparrow bumped into the window of my house.’

(7) So **plat't'a** jun č'eber

that dress very beautiful

d'era-len vur-â^hmâ^hn val=no **m^hnam**.

linen.cloth-GEN1 sew-RES be.PST=ADD I.GEN1

‘That dress of mine was very beautiful,
made of linen cloth.’ (CBOT)

In (6), one NP (my house) is embedded into another NP (the window of the house). The possessive occurs not on the head of the NP with the modifier in genitive, but on the head of the embedding NP. In (7) the modifier in genitive is not left-adjacent to the head, and the possessive is omitted. Hence, the main rule is formulated as follows:

(i) The possessive is obligatory in case of the left-adjacent modifier in genitive. If the NP1 is embedded into NP2, the possessive may occur either on the head of the NP1 or on the head of the NP2.

Another rule concerns the ‘syntactic’ function described in Winkler (2011: 88), Suihkonen (2005) and in other terms in Alatyrev (1970):

possessives are very frequent when they function as nominal heads (or are added to zero nominal heads, depending on the theoretic analysis), e.g.:

(8) Kin'-leš' ton kn'iga-de
who-GEN2 you(NOM.SG) book-ACC.P.2
(SG)

lâž'-i-d, š'estra-ed-leš'=a

read-PST-2(SG) sister-P.2(SG)-GEN2=Q

brat-ed-leš'=a? – **Brat-e-leš'-se.**

brother-P.2(SG)-GEN2=Q brother-P.1(SG)-GEN2-
ACC.P.3(SG)

‘Which book did you read, the brother’s or the sister’s? – The brother’s.’

(9)A kud-iz petux-ez?

and which-P.3(SG) rooster-P.3(SG)

Ted'i-jez il'i **gord-ez?**

white-P.3(SG) or red-P.3(SG)

‘– And which rooster? The white one or the red one?’

A similar function is developed by definiteness markers in a large number of languages, cf. Lehmann (2015: 60).

Unlike in Standard Udmurt, in Beserman the possessives are not obligatory even in this function, consider:

- (10) **Gord**=no pun-iš’ko-m, **ted’â**=no
red=ADD put-PRS-1PL white=ADD
pun-iš’ko-m, č’eber.
put-PRS-1PL beautiful

‘(We weave and get such a beautiful cloth). We add red [threads] and white [threads], it is beautiful.’ (CBOT)

- (11) Vož **kšet-en-len**
green headscarf-INSTR-GEN1
pun-i kal’ mon.

put-1(sg.pst) now I

‘Yes, I have already put [the hedgehog] of the one (the girl) with the green headscarf.’ (The experiment on putting cards with pictures)

In all other contexts possessive markers are freely omitted; however, there are contexts where they are more frequent. For example, they are often found on definite NPs, with relational nouns⁵ and in some specific pragmatic contexts (see 4.1 below).

In order to measure the correlation between several potentially relevant parameters and the frequency of the possessive, we annotated a part of the CBOT for these parameters. The annotated fragment comprises 9 texts of different genres,

⁵ Relational (or relator nouns) are defined as simple nouns (i.e. having morphological and syntactical properties of nouns) that describe spatial/temporal relations and are therefore used similarly to adpositions. Cf. Starosta (1985), DeLancey (1997).

including both dialogues and monologues, and has approximately 2000 nouns. Since 1st and 2^d person possessive affixes are relatively rare in the texts and are almost always used in purely possessive function, only the results for P.3SG vs. non-possessive occurrences were taken into account in the process of annotation. These cases were investigated ‘manually’ by corpus study.

The sample was annotated for 12 parameters:

- 1) case of the modifier:
genitive/nominative/no modifier,
- 2) animacy of the head,
- 3) referential properties of the head
(definiteness, specificity, genericity etc.),
- 4) (in)alienability,
- 5) semantic class of the head,
- 6) syntactic role of the head,

- 7) referential distance, i.e. number of clauses between the previous and the current mentioning of the referent,
- 8) topic persistence, i.e. number of mentions of the referent in the subsequent 10 clauses,
- 9) distance to the 1st mention,
- 10) protagonism,
- 11) type of possessive relation between the head and the modifier (kinship, body-part relation etc.), if any,
- 12) linear position of the modifier (if present) and the head: adjacent vs. non-adjacent.

The correlation of these parameters with the presence of the possessive marker was studied with the help of several machine learning models, including decision trees and Support Vector Machine (SVM). The overall accuracy of the trained classifiers checked against a balanced test

dataset reached 81%, which indicates that these parameters explain the appearance of the possessive marker fairly well, but not completely. The analysis of the decision tree and ablation study revealed that the most significant parameters are the referential status of the noun phrase and the referential distance. These parameters consistently appeared in or adjacent to the root of the decision tree, while their removal led to 5% decrease in precision. Other parameters were also found to correlate with the possessive marking, including syntactic position, semantic class of the noun and the case of the modifier, while topic persistence and distance to the first mention were found to be irrelevant. The dataset was not annotated for topic/comment and bridging, which presumably would have significant influence on the outcome.

According to our data the possessive markers are in general not obligatory either with inalienable kinship terms (there are four kinship terms taking the inalienable set of suffixes: *nâl-â* ‘my daughter’, *š’urnâl-â* ‘my stepdaughter’, *vân-â* ‘my younger brother’, *warmaj-â* ‘my wife’s father’), or with alienable kinship terms (all other kinship terms). Both classes of nouns take possessive markers in 50–60% of occurrences in the corpus. For nouns denoting inalienable body parts and relational nouns the percentage of examples with possessive markers is much higher, 70%. These facts show that (in)alienability is a much less significant parameter than the semantic class of the noun.

4. Distribution of possessive markers with non-possessive function

4.1. Non-possessive functions of the possessive markers

Possessive markers in Beserman Udmurt can have the following non-possessive functions⁶:

1. Definiteness and specificity marker (Winkler 2011): for example, in (10) the speaker refers to an aforementioned referent using the 3rd person singular suffix:

(12) *Ž'ič'i-jez tare košk-i-z*

fox-P.3(SG) then go.away-PST-3(SG)

ot-âš'.

there-EL

⁶ We are not discussing here the 'syntactic' function, which has been introduced in 3.3.

‘(– Then take a [picture of] fox and put it near the girl with yellow hair.) Then **the fox** went away from there.’ (CBOT)

At this point, the DO and the non-DO sets are differentiated: while the non-DO sets can be used to encode all the definiteness types considered in Hawkins (1978), the DO possessive set is only consistently observed in the context of bridging (Geurts 1998; definiteness by association, see Fraurud 2001 and Gerland 2014):

- (13) Sre rassol-**ze** kiš't-iš'ko.
then brine-ACC.P.3(SG) pour-PRS(1SG)

‘(I make pickled cabbage. First I immerse it in water, ... add salt, crush it...) Then I pour out **the brine**.’ (CBOT)

Other types of definiteness (considered in Hawkins 1978) are encoded by the accusative marker *-ez*: cf. (14) with a direct anaphorical use

(an aforementioned NP) and (15) with a larger situation use (a unique NP):

(14) So ber-e gine=n'i so
that back-ILL only=already that
kâl't'o-os-**ez** kel'a-l'l'a-z-ê zavod-jos-ê.
sheaf-PL-ACC send-ITER-PST-3-PL plant-PL-ILL

‘{The women take the rubbish out of the
flax sheaves.} Then they brought **the**
sheaves to flax plants.’ (CBOT)

(15) Kin' jarat-e šundê-**ez**, so
who love-PRS.3SG sun-ACC that
waž' sâl-t-e.
early stand-CAUS-PRS.3SG

‘The people who like **the sun** get up early.’

Thus, the DO possessive tends to mark definiteness by association (bridging), while other types of definiteness are encoded by the

accusative. Non-DO sets are used in all types of definiteness.

The possessives of all the three sets are also found to encode partitive specificity (in the sense of von Heusinger 2005; see Klumpp 2008 for Komi), that is *one of the set* or *part of a whole*:

- (16) Odig č'orog-**ze** piš'aj nu-i-z,
one fish-ACC.P.3(SG) cat take-PST-
3(SG)
muket č'orog-**ze** mi kwaš't-i-m.
other fish-ACC.P.3(SG) we dry-PST-1PL

‘(I caught two fishes yesterday.) The cat took **one fish**, and as for **the other one**, we dried it.’

2. Semi-active participant in the discourse (Chafe 1994), or return to the previous topic (Givón 1983): the NP refers to a participant that has been introduced in the text before, but has not

know-PRS-SG where-OBL-LOC that

d'erevn'a-ez Mâstaj so

village-P.3(sg) Mâstaj that

d'erevn'a-ez-len n'âm-êz .

village-P.3(SG)-GEN1 name-P.3(SG)

{The speaker tells who he was asked to bring passengers from Mâstaj village. <The discussion whether the driver can take passengers while driving the milk tanker>} I don't even know **that village**, Mystaj, where that village is, Mystaj, that's what it is called.' (CBOT)

Note that semi-active participants are by definition definite and this could have influenced the results. However, the analysis of the decision tree shows that both factors are relevant for the presence of the possessive marker. Namely, 44% of definite NPs and 39% of specific NPs (in the sense of von Heusinger 2005) are marked with 3rd

person singular possessive. Inside the definite type the percentage of NPs with possessive markers is the highest for semi-active participants, i.e. if the antecedent is in the previous 8 to 13 clauses (61% of such NPs are marked with the possessive). The percentage of NPs with the possessive suffix is lower for cases when the antecedent is in the previous 1 to 7 clauses or in the previous 14 and more clauses.

New discourse topics also tend to be encoded by possessive markers:

(18) Tin' tārba-de marem etot

here tube-ACC.P.2(SG) HES this(RUS)

vuž tārba-os-se tār-o.

old tube-PL-ACC.P.3(SG) put-PRS.3PL

(The interlocutors discuss the Russian minister of war.) And **the tubes**, they are laying **old tubes**.

(The speaker wants to discuss the abuses in Saint-

Petersburg: old tubes are being laid while money
is being spent elsewhere.)

<...> – Ben so, Mikhalych, ten' so
yes that Mikhalych here that
mar so Moskva-t'i, L'en'ingrad-t'i
what that Moscow-PROL Leningrad-PROL
[not clear] ten' ta-t-ên as-la-m
here this-OBL-LOC REFL-GEN1-P.1

Šamardan-ên **kompl'eks-se**

Shamardan-LOC complex-ACC.P.3(SG)

vuza-z-ê, tak ved'?

sell-3-PL(PST) so(RUS) PTCL(RUS)

(The interlocutor switches the conversation topic
to another abuse.) Yes, Mikhalych, why speaking
of Moscow and Leningrad (Saint-Petersburg),
when even here in Shamardan they [the officials]
have sold **the [cattle-breeding] complex**, haven't
they?

The interlocutors are discussing the Russian minister of war and why he was dismissed. Then they shift to the officials' abuses in general: first, the case of old tubes being laid in Saint-Petersburg and then, the sale of the cattle-breeding complex in Shamardan (their own village). Each shift in the conversation topic is marked with the possessive.

For DOs this function of the possessive accusative contrasts with the use of the accusative (without the possessive). The narrators tend to employ the accusative for active participants, while the possessive accusative is used to refer to semi-active participants.

3. Ethical function (cf. Schlachter 1960, Künnap 2006): possessive markers may refer to a participant that is not the referent of any argument of the lexical verb (cf. Spencer, Luís 2012). For example, in (15) the speaker tells the linguist about

the farm economy in the middle of the 20th century, and (16) is taken from a discussion of a boy who lives in the neighborhood. We cannot speculate on any association with the addressee in these contexts.

(19) Kartoški-**de**=no kopa-l'l'a-m
 potato-ACC.P.2(SG)=ADD dig-ITER-
 PST.1PL

kartoška=no puk-t-êl-i-m lud
 potato=ADD sit-CAUS-ITER-PST-1PL field
 vêl-e bakč'a-je.
 top-ILL garden-ILL

‘(The text starts with a narrative regarding traditional linen production. The previous sentence: “That’s how we harvested it, we did any kind of work.”) We used to dig **potatoes**, we planted potatoes in the field, in the garden.’

(CBOT)

(20) Ma pot-i-z=ke nâr-**êd**

PTCL go.out-PST-3(SG)-if nose-P.2(SG)

gord lu-o-z=uk.

red become-FUT-3(SG)-EMPH

‘(The speaker tells about a boy who does not like to bathe.) Whenever he comes out [of the river], **his nose** will be red.’ (CBOT)

The ethical function is usually considered to be limited to 2^d person possessive only. However, in Beserman it is observed with all person and number markers, see the example with the 3rd person plural:

(21) Kâtk-i-z-ê ulep val-**zes**

harness-PST-3-PL live horse-ACC.P.3PL

kad’ i assez košk-i-z-ê.

kind.of and REFL.3PL leave-PST-3-PL

(While the fox was looking for a new shaft, the bear and the wolf ate the horse and filled its skin

with sparrows.) [They] harnessed kind of a live horse and left. (CBOT)

The sentence is taken from a story telling how a fox has stolen a cart and a horse from a countryman. It drove the cart through the wood and invited the bear and the wolf to come with it. When the fox left (in order to find a new shaft for the cart), the bear and the wolf ate the horse and made up a new one filling the horse's skin with sparrows. Hence, the actual possessor of the cart and the horse is the fox (or their previous possessor, the countryman). The possessive suffix on the bold-faced noun cannot be interpreted as referring to the bear and the wolf. We conclude that it is used in the ethical function, in the same way as the 2^d person possessive in (20).

Examples with 1st person (singular or plural) in this function are found as well: the narrator refers

to her/himself only to emphasize that the NPs with the possessive is the one s/he has been talking about.

Note that the ethical function is not a separate use of the possessive, but rather constitutes a component of meaning which is added to one of the functions considered in this section. For example, in (19) this component is added to the meaning of new discourse topic (potatoes are discussed after discussing flax), and in (20) and (21) it is added to the bridging context (the nose is associated with its owner; the bear and the wolf filled the horse's skin with sparrows, which action produced 'kind of a live horse' discussed in the sentence under consideration). Thus, in line with the observation of the anonymous reviewer, the ethical component of meaning occurs in combination with the

definiteness/specificity/semi-active status and other functions of the possessive.

4. Vocative function (Winkler 2011) is observed with 1st person possessives:

(22) Ja, tin' ôč'e, **nâl-ô**,

well here so girl-P.1(SG)

sôč'e-os-tô vera-j=n'i.

such-PL-ACC.PL tell-PST(1SG)=already

'Well, that's it, **my girl** (addressing to the linguist recording the text), these are the things that I told you.'

(23) Lud.keč' vera: "Ž'ič'ô-je,

rabbit tell(PRS.3SG) fox-P.1(SG)

puk-t-ô mon-e!"

sit-CAUS-IMP.SG I-ACC

'The rabbit says: "**Fox**, give me a lift!" '

(CBOT)

Note that in both cases the 1st singular possessive does not encode any possession relationship (e.g. in (22) it is not the daughter of the speaker, it is the linguist recording the text), and it would not be used unless it were in a vocative.

5. Emphasis of the deictic and anaphoric function similar to the English ‘here’ and ‘there’ in ‘this dog here’ and ‘that dog there’, cf.⁷:

(24) Kin’ dor-e? – So lud ad’ami-**ed**
who near-ILL that wild man-P.2(SG)
dor-e.
near-ill

‘To whom? – To this wild man [we were talking about].’ (CBOT)

⁷ Note that in this example the 2^d person possessive is used, adding the ethical component of meaning (number 3) discussed above. We consider the ethical function not as a separate one, but as a component of meaning that is added to other functions considered in this section. Thus, in (24) this component is added to the deictic meaning.

We include in the deictic function the context of placeholders (for the use of deictic pronouns as placeholders (or with them) see Hayashi, Yoon 2006), for example the fragment after the particle *marâm* often takes the possessive:

- (25) Dvadcat' pervovo vu-o-z-ê
 twenty(RUS) first(RUS,GEN) come-FUT-
 3-PL
- na dvadcat' pervoje marâm-ze
 for(RUS) twenty(RUS) first(RUS) HES-ACC.P.
 3(SG)
- bil'et-se baš't-êmân=n'i so-os-len.
 ticket-ACC.P.3(SG) take-RES-already that-PL-
 GEN1

'They are coming on twenty first, their, um, their tickets are for the twenty first.' (CBOT)

6. The context of the contrastive topic often requires the possessive accusative marker:

(26) Vəj-**ze** š'i-i-z,

butter-ACC.P.3(SG) eat-PST-3(SG)

n'an'-**ze** kel't-i-z.

bread-ACC.P.3(SG) leave-PST-3(SG)

‘{There was a piece of bread with butter on the table.} [The cat] ate the butter, but spared the bread.’ (Toldova, Serdobolskaya 2012: 131)

All these functions are observed with markers of both alienable and inalienable sets.

It must be specified that possessive markers from the DO set and non-DO sets have slightly different functions: while the DO possessives tend to encode definiteness by bridging (while other types of definiteness are encoded by the accusative), the other two sets mark all types of definiteness. For all the sets, however, the pragmatical contexts 2.-6. are relevant, since they are most likely to require the possessive.

Thus, all the three sets of markers are used in the substantivizing and ethical function, as well as in the context of the emphatic deictic, contrastive topic, semi-active discourse topics and other pragmatic contexts. The vocative function is observed with 1st person possessives only. In the substantivizing function the possessives are most often present (however, not obligatory), while in all other functions they are optional.

4.2. The hypothesis of grammaticalization of possessive markers into articles

As discussed in section 2, many authors claim that Udmurt possessive markers are used as markers of definiteness or, an even stronger claim, are being grammaticalized in this function. We are going to review this claim for Beserman Udmurt.

Note that the discussed phenomenon involves co-existence of earlier forms (possessive markers in their main function) with the grammaticalized ones (possessive markers with non-possessive function). In section 2 we have shown that possessive markers in Beserman Udmurt, as well as in other Finno-Ugric idioms, preserve their possessive function. Moreover, in this function they are obligatory in constructions with left-adjacent genitive possessors (either pronouns and nouns), while in non-possessive functions they are not obligatory (even in the syntactic function described in 3.3).

However, desemantization of the possessive meaning is also observed: possessive markers may be used even if no possessive relation can be thought of, see (24) and (26). As shown above, this happens in the vocative context, in contexts of

definiteness, emphatic deictic, semi-active discourse status, new discourse topic, contrastive sentence topic, and hesitation.

Grammaticalization may involve generalization of grammatical function, as well as semantic change (Hopper, Traugott 2003, Lehmann 2015). In Beserman Udmurt we observe the loss of person-number distinction of the possessive markers. Namely, the markers of 3rd and 2^d person singular are used to denote definiteness even if the context shows that the actual possessor is another person:

- (27) Tože kartoška pun-iš'ko=no,
also potato put-PRS(1SG)=ADD
marêm zək parš'-**ez**, so kət-êz
HES big pig-P.3(SG) that belly-P.3(SG)
ug târ leš'a.
NEG fill(SG) evidently

{The speaker is explaining how she feeds her pigs – with goose-foot, coltsfoot etc.} ‘I also give them potatoes, **the big pig** is not full up.’ (CBOT)

(28) Tolon vel't-i-m č'aš'a-e
 yesterday go-PST-1PL forest-ILL
 gibija-nê, so bere č'aš'a
 pick.mushrooms-INF that after forest
 gibi-ze ujbât š'už'ja-m.
 mushroom-ACC.P.3(SG) whole.night clean-
 PST.1PL

‘We went to the forest to pick mushrooms and then we spent the whole night cleaning **mushrooms.**’

In (27) the actual possessor is the speaker, and in (28) it may be either the speaker or his/her family. However, in both cases the 3rd person

singular suffix is used to denote definiteness in (27) and definiteness by bridging in (28).

In both examples the marker of 3rd person singular is used regardless of the person and number of the possessee. The 2^d person singular marker may also be used in similar contexts even if the actual possessor is 1st or 3rd person, see (19) and (20). In these two sentences we explain it by the ethical function of the possessive marker, i.e. it refers to the addressee. Hence, the person distinction of the possessive is preserved in a way; however, the person marker does not reflect the person of the possessor. Instead, it refers to the addressee (20), to the speaker or to the protagonist (21).

Quite expectedly, the vocative function is attested with the 1st person markers, regardless of the actual possessor, as well.

This data is summarized in table 2.

Table 2. The distribution of sets of possessive markers in Beserman Udmurt.

Set of markers	Generalization of grammatical functions: person, number	Desemantization: possessive relationships	Non-possessive functions	Obligatoriness in this function
3sg, all sets	yes	yes	substantivizer	no
all persons and numbers, all sets	yes	yes	definiteness, specificity, semi-active status, contrastive	no

			topic, hesitation etc.	
1sg and pl non-DO	no	yes	vocative	no

Regarding the range of functions developed by the possessive markers, we conclude that they have not grammaticalized as articles. As shown in table 2, definiteness is not the sole function of either set of markers. Moreover, the definite reading is not always observed, for example it is always absent in the partitive specificity function and it may be absent with markers of hesitation etc.

Obligatorification is one of the processes expected by grammaticalization (Lehmann 2015). However, the meaning of definiteness is not obligatorily expressed by possessive markers (unlike languages with articles, where the definite article is obligatory in the context of afore-

mentioning in the previous sentence), see also Fraurud (2011) on Standard Udmurt. Consider the following example:

(29) Odig pol mân-e až'-e
one time go-PRS.3PL see-PRS.3SG
gondâr-ez. **Gondâr** vera: “ž'ič'â
bear-ACC bear tell-PRS.3SG fox
puk-t-â mon-e!”
sit-CAUS-IMP.SG I-ACC

‘{The fox is driving a cart.} Once, while driving, it sees a bear. **The** bear says: Fox, give me a lift.’ (CBOT)

This text has been recorded from 4 native speakers and it involves 3 instances of reference patterns of the same type (the fox meets a bear, a wolf and a hare), which makes 12 contexts of explicit afore-mentioning in the subsequent context. In neither of 12 sentences the

aforementioned NP is marked with the possessive marker.

Nor are possessive markers obligatory in NPs with demonstrative pronouns:

(30) **Ta d'erevn'a-jân mon**
this village-LOC I(NOM)

vorž'-ik⁸-i.

give.birth-DETR-PST-1(SG)

‘(In the discussion about Shamardan) I was born in this village.’ (CBOT)

In the DO set, definiteness is encoded by the accusative marker, while the possessive accusative is used in specific cases, such as definiteness by association (bridging), semi-active status, contrastive topic etc. (see above).

Thus, we show that definiteness is neither a necessary, nor a sufficient condition for the use of

⁸ In general, the detransitivizing suffix has the form *-iš'k-*. However, it is reduced to *-ik-* after *-t*, *-d*, *-č'* and *-ž'*.

a possessive of any set of markers. We must then reject the hypothesis about the grammaticalization of Beserman possessive markers as articles. Instead, we argue that the phenomenon in question involves ‘crystallization of pragmatic meaning’, or pragmaticization (Fried 2009). Adopting this term we explain why the possessive markers are not obligatory in non-possessive functions, since pragmaticization is a weaker condition, which does not require grammatical obligatoriness.

5. Conclusions

We have considered the system of possessive suffixes in Beserman Udmurt, reviewing the supposition about their grammaticalization as markers of definiteness. In line with Nikolaeva

(2003)'s statement about Uralic idioms in general, we show that the 'definiteness claim' is a very rough characterization for Beserman. The Beserman possessive markers are indeed used to indicate definiteness, but this meaning is neither a sufficient (they are not obligatory in contexts of definiteness, as Fraurud (2011) shows for Standard Udmurt) nor a necessary condition for them to be used, since they develop a number of non-possessive functions. Our proposal also agrees with Gerland (2014)'s claim against the grammaticalization hypothesis of possessive markers in Uralic. If we adopt this approach (and suppose that the 'definite' function did not develop later, but was inherently present in the semantics of the discussed markers), we may argue that the non-possessive ('definite') function of these markers developed a number of pragmatic

functions in Beserman (as marking of new/semi-active discourse topics, deictic function, use with hesitation markers etc.).

According to their (non-)obligatoriness, (non-)preservation of person/number distinction and range of functions, the possessive markers fall into the following types.

1. The 3rd person singular markers of all the sets are very frequent (however, not obligatory) when they function as substantivizers.

2. The alienable and inalienable markers of 1st person (singular and plural) have “pragmaticized” as markers of vocative.

3. The markers of the 2^d and 3rd person have “pragmaticized” as an expression of definiteness or specificity. They are most likely to mark definite/specific NPs in the context of semi-active status, of a new discourse topic, in case of

contrastive topic, as emphatic deictics and with hesitation markers. As for the DO set of markers, they tend to encode definiteness by bridging, while direct anaphorical, immediate situation and larger situation functions (in terms of Hawkins 1978) are preferably covered by the accusative case marker.

The ethical function can be developed by markers of all the sets, and the person/number distinction is preserved in this case. However, it is not the actual possessor that is referred to, rather either the addressee, the speaker, or the protagonist.

Abbreviations

ACC	accusative
ADD	additive particle

CAUS	causative
DETR	detransitive
EL	elative
EMPH	emphatic particle
FUT	future
GEN1	genitive (except with direct object)
GEN2	genitive (with direct object)
HES	hesitation marker
ILL	illative
IMP	imperative
INF	infinitive
ITER	iterative
LOC	locative
NEG	negation
NOM	nominative
OBL	oblique nominal stem
P.1/2/3SG/PL	possessive markers
PL	plural
PRS	present
PST	past
PTCL	particle
Q	question marker

RES	resultative
SG	singular

References

Aikhenvald, Alexandra Y. & Dixon, R. M. W. 2013. *Possession and ownership: A crosslinguistic typology*. Oxford: Oxford University Press.

Alatyrev, Vasiliy I. 1970. *Vydelitelno-ukazatel'naya kategoriya v udmurtskom jazyke* [The restrictive demonstrative category in Udmurt]. Izhevsk: Udmurt Institute of history, economics, literature and language.

Alatyrev, Vasily I. 1983. *Kratkiy grammaticheskiy ocherk udmurtskogo yazyka* [A brief grammatical sketch of Udmurt]. *Udmurt-*

Russian dictionary, 561–591. Moscow: Russkiy yazyk.

Chafe, Wallace. 1994. *Discourse, consciousness, and time: The flow and displacement of conscious experience in speaking and writing*. Chicago: University of Chicago Press.

Collinder, Björn. 1960. *Comparative grammar of the Uralic languages*. Stockholm: Almqvist & Wiksell.

Collinder, Björn. 1957. *Survey of the Uralic languages*. Stockholm: Almqvist & Wiksell.

Décsy, Gyula. 1990. *The Uralic Protolanguage: A Comprehensive Reconstruction*. Bloomington, Indiana: EUROLINGUA.

Fraurud, Kari. 2001. Possessives with extensive use: A source of definite articles? In *Dimensions of possession* (Typological Studies in

Language), Irène Baron, Michael Herslund & Finn Sørensen (eds), 243–267. Amsterdam; Philadelphia: John Benjamins, 2001.

Fried, Mirjam. 2009. Construction Grammar as a tool for diachronic analysis. *Constructions and Frames* 1 (2): 262–291.

Gerland, Doris. 2014. Definitely not possessed? Possessive suffixes with definiteness marking function. In *Frames and concept types. Applications in language and philosophy* (Studies in linguistics and philosophy 94), Thomas Gamerschlag & Doris Gerland & Rainer Osswald & Wiebke Petersen (eds), 269–292. Cham & Heidelberg: Springer.

Geurts, Bart. 1998. Presuppositions and anaphors in attitude contexts. *Linguistics and philosophy* 21: 545–601.

Givón, Talmy (ed.). 1983. *Topic Continuity in Discourse: A Quantitative Cross-Language Study*. Amsterdam; Philadelphia: John Benjamins.

Hawkins, John. 1978. *Definiteness and indefiniteness*. London: Croom Helm.

Hayashi, Makoto, Yoon, Kyung-Eun. 2006. A cross-linguistic exploration of demonstratives in interaction: With particular reference to the context of word-formulation trouble. *Studies in Language* 30 (3): 485–540.

Heine, Bernard. 1997. *Possession: cognitive sources, forces and grammaticalization*. Cambridge: Cambridge University Press.

Hopper Paul J., Traugott, Elizabeth C. 2003. *Grammaticalization*. Cambridge University Press.

Johanson, Lars, Csató, Éva Á. 1998. *The Turkic Languages* (Routledge Language Family Series). London: Routledge.

Kibrik, Andrey A. 2011. *Reference in discourse*. New York: Oxford University Press.

Klumpp, Gerson. 2008. Differentielle Objektmarkierung & Informationsstruktur in Dialekten des Komi. München. Ms.

Koptjevskaja-Tamm, Maria. 2002. Adnominal possession in the European languages: form and function. *STUF – Language Typology and Universals* 55 (2): 141–172.

Künnap, Ago. 2006. *Historically problematic morphosyntactic features in Uralic languages*. München: LINCOM EUROPA.

Kuznetsova, Ariadna I. 2003. Kumulaciya grammaticheskix znachenij v agglutivativnyx pokazatelax: deikticheskiye funkicii possessiva v uralskix jazykax [Several grammatical meanings in agglutinative markers: deictic functions of possessive markers in Uralic]. In *Finno-ugorskije*

jazyki: fragmenty grammatičeskogo opisanija, Formalnyj i funkcionalnyj podkhody [Finno-Ugric languages: fragments of grammatical description. Formal and functional approaches], Ariadna I. Kuznetsova e.a. (eds), 250–262. Moscow: Russkiye slovari.

Lehmann, Christian. 2015. *Thoughts on grammaticalization*. 3rd edition 2015 (Classics in Linguistics 1). Berlin: Language Science Press.

Mithun, Marianne. 1999. *The Languages of Native North America*. Cambridge: Cambridge University Press.

Nichols, Johanna. 1992. *Linguistic diversity in space and time*. Chicago, London: University of Chicago press.

Nichols, Johanna, Bickel, Balthasar. 2013. Possessive Classification. Dryer, Matthew S. & Haspelmath, Martin (eds.) *The World Atlas of*

Language Structures Online. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at <http://wals.info/chapter/59>, Accessed on 2016-02-23.)

Nikolaeva, Irina A. 2003. Possessive affixes as markers of information structuring: Evidence from Uralic. In *International Symposium on Deictic Systems and Quantification in Languages spoken in Europe and North and Central Asia. Collection of papers*, Pirkko Suihkonen & Bernard Comrie (eds), 130–145. Izhevsk; Leipzig: Udmurt State University; Max Planck Institute of Evolutionary Anthropology.

Plungian, Vladimir A. 2011. *Vvedeniye v grammaticheskuyu semantiku: grammaticheskiye znacheniya i grammaticheskiye sistemy jazykov mira* [Introduction into grammatical semantics:

grammatical meanings and grammatical system of the world's languages]. Moscow: RSUH.

Prince, Ellen F. 1981. Toward a taxonomy of given-new information. In *Radical Pragmatics*, Peter Cole (ed.), 223–255. New York: Academic Press.

Rubin, Aaron D. 2010: The development of the Amharic definite article and an Indonesian parallel. *Journal of Semitic studies* 55 (1): 103–114.

Schlachter, Wolfgang. 1960. *Studien zum Possessivsuffix des Syrjänischen*. Berlin: Akademie Verlag.

Serdobolskaya, Natalia V. & Toldova, Svetlana Ju. 2012. Differencirovannoye markirovaniye pryamogo dopolneniya v finno-ugorskix jazykax [Differential object marking in Finno-Ugric languages]. In *Finno-ugorskiye jazyki: fragmenty*

grammaticeskogo opisaniya. Formalnyj i funkcionalnyj podxody [Finno-ugric languages: fragments of grammatical description. Formal and functional approaches], Ariadna I. Kuznetsova e.a. (ed.), 59–142. Moscow: Jazyki slavyanskix kultur.

Siegl, Florian. 2015. The structure of noun phrases with referential Px.2p in Northern Samoyedic. *Tomsk Journal of Linguistic and Anthropology* 1 (7): 21–31.

Spencer, Andrew & Luís, Ana R. 2012. *Clitics: An Introduction*. Cambridge: Cambridge University Press.

Starosta, Stan. 1985. Relator nouns as a source of case inflection. In *For Gordon H. Fairbanks, Veneeta Z. Acson, & Richard L. Leed* (eds), 111–133. Honolulu: University Press of Hawaii.

Suihkonen, Pirkko. 2005. On the categories and functions developed from the possessive and deictic suffixes in Udmurt. *Lihkkun lehkos! Beiträge zur Finnougristik aus Anlaß des sechzigsten Geburtstages von Hans-Hermann Bartens*, Cornelius Hasselblatt, Eino Koponen & Anna Widmer (eds), 401–432. Wiesbaden: Harrassowitz Verlag.

Tauli, Valter. 1966. *Structural tendencies in Uralic languages*. Indiana University Publications (Uralic and Altaic Series 17). The Hague: Mouton & Co.

von Heusinger, Klaus & Jaklin Kornfilt. 2005. The case of the direct object in Turkish: Semantics, syntax and morphology. *Turkic Languages* 9: 3–44.

Winkler, Eberhard. 2011. *Udmurtische Grammatik*. Wiesbaden: Harrassowitz Verlag.

Yedygarova, Svetlana. 2010. *Kategoriya
posessivnosti v udmurtskom yazyke* [The category
of possession in Udmurt]. Ph.D. Diss. Tartu: Tartu
Ülikooli Kirjastus.