What counts as relational in Hungarian, Uralic and beyond?

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1. Introduction

Goals of the talk:
• connect inflectional asymmetries in verbal agreement and in possessor agreement
• draw on the close morphological parallels between the split
• explain them against the typological background of cross-linguistic generalizations and theoretical notions such as alienability, D-linking, DOM, markedness, and transitivity
• give the two splits a common rationale: the explosure of a pragmatic relation
• introduce and define the notion of ‘robustness’ of a transitive scenario

2. A split in the possessor agreement morphology

2.1 Typological context: the morphosyntax of alienability

(i) inalienable possession involves an inherent affiliation.
(ii) alienable possession involves temporary affiliation, where the p’or typically has control over the p’um.

Some ways of expressing an (in)alienability distinction in contexts of possession:

(1) Jamul Tiipay (Yuman < Hokan, Mexico; Miller 2001: 145ff)
   a. me-ntaly
      2-mother
   b. me-shally
      ’your mother’
   c. me-ny-a’naak
      2-POSS-chair
      ‘your chair’

(2) Udihe (Tungus < Altaic; Siewierska 2004: 138f)
   a. bi Anda-i
      PRON1SG friend-1SG
      ‘my friend’
    b. nuanija-^M-ni
      cow-POSS-3SG
      ‘his cow’

We construe the conceptual basis of the alienability dichotomy as the opposition of semantic possession and pragmatic possession, parallel to that of semantic and pragmatic definiteness in the sense of Löbner (2011) and Ortmann (submitted).

⇒ Less conceptual distance is mirrored by less morphosyntactic complexity
⇒ Morphological markers of alienability (especially ‘connectives’) are interpreted as establishing a non-inherent, contextual POSS relation, thus denoting a type-shift <e,t> → <e <e,t>>
2.2 Adnominal Possession in Hungarian

Lexical possessors can either be in the nominative or in the dative:

(3)  a. (a) Péter kalap-ja  b. Péter-nek a kalap-ja
    DEF Peter.NOM hat-P’OR3SG  Peter-DAT DEF hat-P’OR3SG
    ‘Peter’s hat’  ‘id.’

The head-noun (i.e., the p’um) always bears a morphological specification of the possessor:

(4)  a. az én kalap-om  b. a te kalap-od  c. az ō kalap-ja
    DEF PRON1SG hat-P’OR1SG  DEF PRON2SG hat-P’OR2SG  DF PRON3 hat- P’OR3SG
    ‘my hat’  ‘your hat’  ‘his/her hat’

2.3 An alienability split in the possessor agreement morphology

Hungarian displays an alienability split first investigated in Kiefer (1985); see also Elekfi (2000), Moravcsik (2003).

(5)   ‘inalienable’:  ‘alienable’:
    ablak-a  ablak-ja
    window-P’OR3SG window-ALIEN.P’OR3SG
    ‘its window’  ‘his/her window’
    (e.g., of a house or a door, part-whole relation)  (literally possessed, by a person)

    üveg-e vs. üveg-je  ‘glass’ of a window / owned by a person
    zseb-e vs. zseb-je  ‘pocket’ of a coat / belonging to a person
    taréj-a vs. taréj-ja  ‘crest’ of a cock / in someone’s soup
    keret-e vs. keret-je  ‘frame’ of a picture’ / owned by a person
    anyag-a vs. anyag-ja  ‘material’ of something’ / to work with
    talp-a vs. talp-ja  ‘sole’ of a person’s body / of a shoemaker
    mag-a vs. mag-ja  ‘kernel’ of a fruit / seed(s) owned by a person

The following phonological environments do not allow for the alternation:
- stems ending in a strident or palatal consonant: [s, z, ʃ, j, ɲ, ɟ]; e.g., has-a ‘his/her/its belly’, tojás-a ‘its egg’
- stems ending in [a]: almá-ja ‘his/her/its apple’

Input conditions for the alternation:
phonological: The noun stem must not end in a strident or palatal consonant or in a
semantic: The noun must be relational

⇒ Typological context of the Hungarian data:
- alienability split, in line with the generalization ‘less conceptual distance between possessor and possessee corresponds to less structural markedness’
- in particular, the /-ful suffixes have the function of morphologically establishing a non-inherent contextual POSS relation
The Hungarian nouns that take \textit{j} are possessable anyway, rather than being ‘absolutivised’.
For both declensions, one must assume the use of a noun as a relational concept (RC) in the sense of Löhner (2011).

\textbf{Representations:}

(6) \textit{/j/-less form simply saturates the p’or argument (underlying relational concept maintained):

scheme for RCs: } \lambda y \lambda x [(\text{SortalComponents}(x)) \ldots \& \text{RelationalComponent}(x,y)]

instantiation by \textit{abak}: \lambda y \lambda x [\text{\textquoteleft \textquoteleft WINDOW\textquoteright \textquoteright } (x) \ldots \& \text{PART-OF}(x,y)]

applied to -a “it”: \lambda x [\text{\textquoteleft \textquoteleft WINDOW\textquoteright \textquoteright } (x) \ldots \& \text{PART-OF}(x, “it”)]

\textit{/j/-ful form indicates a shift RC \rightarrow SC with a contextual relation (thus, RC \rightarrow SC \rightarrow RC) and at the same time saturates the p’or argument):

-ja: \lambda \text{RC} \lambda x \exists y [\text{RC}(x,y) \& \text{POSS}_{\text{context}}(“s/he”,x)]

applied to \textit{abak}: \lambda x \exists y [\text{\textquoteleft \textquoteleft WINDOW\textquoteright \textquoteright } (x) \ldots \& \text{PART-OF}(x,y) \& \text{POSS}_{\text{context}}(“s/he”,x)]

\textit{j- as a component of lexicalised relational nouns:}

(i) body parts:

(7) \begin{tabular}{cccccc}
    fej & ujj & száj & máj & haj \\
    ‘head’ & ‘finger’ & ‘mouth’ & ‘liver’ & ‘hair’
\end{tabular}

⇒ sub-split within the alienability split: -j is part of the stem, vacuously indicating an inherent rather than a contextually established relation, hence semantic rather than pragmatic possession.

(ii) Some of them are even transparently derived from non-relational bases by the \textit{j}:

(8) a. \textit{ferj} ‘husband’ \textless \textit{ferfi} ‘man’


\text{b. nej ‘wife’ \textless \textit{nö} ‘woman’}

\textbf{Conclusions:}

- The interaction of morphological and semantic distinctions is well-known from typology (alienability, type-shift)
- The status of -\textit{j} with ‘alternating’ nouns is that of a marker of a relation denoting a type shift: for productively alternating nouns: RC \rightarrow SC \rightarrow RC
  for lexicalised RCs (‘husband’, ‘wife’) with SC bases: SC \rightarrow RC
  (semantically vacuous as part of the stem of body part nouns)

3. A split in the verbal conjugation

3.1 Basic facts

Hungarian differentiates between a subjective and an objective verbal conjugation. The objective conjugation involves ‘\textit{j-full}’ forms as they also occur with nouns (dealt with in the previous section). The \textit{j} occurs with subjects of 3.SG as well as all persons in the PL:
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(9) Paradigm for vár ‘to wait’

<table>
<thead>
<tr>
<th>1SG</th>
<th>objective</th>
<th>subjective</th>
<th>objective preterite</th>
<th>subjective preterite</th>
<th>possessive suffixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>vár-om</td>
<td>vár-ok</td>
<td>vár-t-am</td>
<td>vár-t-am</td>
<td>kalap-om</td>
<td>‘my hat’</td>
</tr>
<tr>
<td>vár-od</td>
<td>vár-sz</td>
<td>vár-t-ad</td>
<td>vár-t-ádl</td>
<td>kalap-od</td>
<td>‘your hat’</td>
</tr>
<tr>
<td>vár-ja</td>
<td>vár-Ø</td>
<td>vár-t-a</td>
<td>vár-t-Ø</td>
<td>kalap-ja</td>
<td>‘his/her hat’</td>
</tr>
<tr>
<td>1PL vár-juk</td>
<td>vár-unk</td>
<td>vár-t-uk</td>
<td>vár-t-unk</td>
<td>kalap-unk</td>
<td>‘our hat’</td>
</tr>
<tr>
<td>2PL vár-játok</td>
<td>vár-tok</td>
<td>vár-t-átok</td>
<td>vár-t-átok</td>
<td>kalap-otok</td>
<td>‘your hat’</td>
</tr>
<tr>
<td>3PL vár-ják</td>
<td>vár-nak</td>
<td>vár-t-ák</td>
<td>vár-t-ak</td>
<td>kalap-juk</td>
<td>‘their hat’</td>
</tr>
</tbody>
</table>

(10) a. Lát-játok a kutyá-t
    b. Lát-játok ŏ-t
    see-2PL.OBJ DEF dog-ACC see-2PL.OBJ PRON3SG-ACC
    ‘You (pl.) see the dog’.           ‘You (pl.) see him/her.’

    c. Lát-tok egy kutyá-t
d. Lát-tok / *-játok
    see-2PL.SUBJ INDEF dog-ACC see-2PL.SUBJ /-2PL.OBJ
    ‘You (pl.) see a dog.’           ‘You see.’

Commonly the objective conjugation is analysed as being triggered by the definiteness of the object: in informal terms (Comrie 1977, Kenesei, Vágo & Fenyvesi 1998, Coppock & Wechsler 2010), in terms of syntactic DP structure (Bartos 1997, 1999, É. Kiss 2002), or in terms of a feature [+DEF] that is either purely formal (den Dikken 2004, Coppock & Wechsler 2012) or semantically motivated (Coppock 2012).

Accordingly, the objective conjugation is often referred to as the ‘definite’ conjugation.

3.2 Complexities of the distribution: ±definite only as a rule of thumb

3.2.1 ‘Local’ objects

1st and 2nd person objects trigger the subjective rather than the objective conjugation:

    PRON1SG.ACC see-2SG.SUBJ/-2SG.OBJ PRON2SG.ACC see-3PL.SUBJ/-3PL.OBJ
    ‘You see me.’           ‘They see you.’

For 1st person singular subject and 2nd person object the portmanteau suffix –/Vk is used:

(12) a. Lát-lak (téged).
    see-1SG→2 PRON.2SG
    ‘I see you.’

b. Lát-lak titeket.
    see-1SG→2 PRON.2PL
    ‘I see you(pl.).’

The person sensitivity of objects can hardly be explained in terms of definiteness!
3.2.2 Objects with wh-words: interrogative pronouns and relative pronouns

(13) a.  

\[ \text{Ki-t lá-t-sz/*lá-t-od?} \]

who-ACC see-2.SG.SUBJ/*2.SG.OBJ

‘Who do you see?’

b.  

\[ \text{Mi-t vesz-el/*vesz-ed?} \]

what-ACC buy-2.SG.SUBJ/*2.SG.OBJ

‘What do you buy?’

c.  

\[ \text{Melyik vázá-t vesz-ed/*vesz-el?} \]

which vase-acc buy-2.SG.OBJ/*2.SG.SUBJ

‘Which vase do you buy?’

melyik is D-linked, hence specified as familiar, since its referential argument “will range over a set of entities that form an individual part of a contextually given plural entity” (Coppock 2012).

Observe the parallel in the morphological structure and the choice of the conjugation between the interrogative ki, mi, (bár)melyik and the relative pronouns aki, ami, amelyik:

(14) a.  

\[ (\text{Az}) \ a \ férfi, \ aki-t ott lá-t-sz. \]

DEM DEF man who-ACC there see-2.SG.SUBJ

‘This/the man you see over there.’

b.  

\[ (\text{Az}) \ az \ almá-t, \ ami-t ott vehet-sz \]

DEM DEF apple which-ACC there buy-2.SG.SUBJ

‘This/the apple you can buy there.’

c.  

\[ (\text{Az}) \ a \ férfi/alma, \ amelyik-et ott lá-t-sz/-od \]

DEM DEF man/apple which-ACC there see-2.SG.SUBJ/*2.SG.OBJ

‘This/the man/apple you see over there.’

3.2.3 Objects with indefinite pronouns or quantifiers

The indefinite pronouns néhány, valamennyi ‘some’ and the quantifier minden ‘every’ trigger the subjective conjugation, whereas valamennyi with the meaning of ‘each’ triggers the objective conjugation.

(15) a.  

\[ \text{lát-ok/*-om néhány gyerek-et} \]

see-1SG.SUBJ/*1SG.OBJ some child-ACC

‘I see some children.’

b.  

\[ \text{lát-ok/*-om minden gyerek-et} \]

see-1SG.SUBJ/*1SG.OBJ every child-ACC

‘I see every child.’
c. lát-ok/*-om  valamennyi  gyerek-et
see-1SG.SUBJ/1SG.OBJ some child-ACC
‘I see some children.’

d. lát-om/*-ok  valamennyi  gyerek-et  (az  osztály-ból)
see-1SG.OBJ/1SG.SUBJ each child-ACC DEF class-ELATIVE
‘I see each child (of the class).’

Motivation: There is a partitive component in the lexical entry of valamennyi ‘each’ (Coppock 2012).

3.2.4 Infinitival and clausal objects

Complement clause objects trigger the objective conjugation:

(16) a. Tud-ta, hogy Péter csal-t egy viszgá-nál.
know-PRET.3SG.OBJ COMPL Peter cheat-PRET.3SG.SUBJ INDEF exam-ADESSIVE
‘He knew that Peter cheated in an exam.’

b. Nem tud-om hogy miért csinal-ta az-t.
NEG know-1SG.OBJ COMPL why do-PRET.3SG.OBJ DEM-ACC
‘I don’t know why he did that.’

Infinitives trigger the subjective conjugation:

John like-3SG.SUBJ wash_dishes-INF dinner after
‘John likes to do the dishes after dinner.’

b. Nem akar-ok haza men-ni.
NEG want-1SG.SUBJ home go-INF
‘I don’t want to go home.’

Motivation: Complement clauses are (onto)logically affine to individual terms and as such to definite NPs. By contrast, infinitives can logically be regarded as properties, not as individuals; hence do not correspond to definite NPs.

3.2.5 Possessed or specific indefinite objects

The objective conjugation is also used with indefinite objects, provided that they are possessed:

(18) a. egy magyar író könyv-é-t olvas-om
INDEF Hungarian author book-POR3SG-ACC read-1SG.OBJ
‘I read a book of a Hungarian author.’

b. (a) János könyv-é-t olvas-om
DEF János book-POR3SG-ACC read-1SG.OBJ
‘I read János’s book.’
c. János egy könyv-é-t olvas-om
   János INDEF book-POR3SG-ACC read-1SG.OBJ
   ‘I read a book of János’s.’

d. egy könyv-em-et /-ünk-et olvas-om
   INDEF book-P’OR1SG-ACC -POR1PL-ACC read-1SG.OBJ
   ‘I read a book of mine/ours.’

⇒ The distribution cannot be explained as a definiteness effect.

(19) Ismer-ek/-em néhany könyv-ed-et
   know-1SG.SUBJ/1SG.OBJ some book-POR2SG-ACC
   ‘I know some of your books.’

⇒ The presence of an indefinite p’or phrase suffices to trigger the objective conjugation.

Besides definiteness and possession, some notion of specificity also plays a role:
(20) a. Olvas-t-uk Péter (öt) vers-é-t
   read-PRET.1PL.OBJ Péter five poem-POR3SG-ACC
   ‘We have read Peter’s (five) poems.’

   b. Olvas-t-unk Péter-nek (öt) vers-é-t.
   read-PRET.1PL.SUBJ Péter-DAT five poem-POR3SG-ACC
   ‘We have read (five) poems by Peter.’

(21) a. Könyv-ek-et kölcsönkér-t-∅ / *-t-e.
   book-PL-ACC borrow-PRET.3SG.SUBJ PRET. 3SG.OBJ
   ‘S/he borrowed books.’

   b. Két könyv-et kölcsönkér-t-∅.
   two book-PL-ACC borrow-PRET-3SG.SUBJ
   ‘S/he borrowed two books.’

   c. Két könyv-et kölcsönkér-t-e.
   two book-PL-ACC borrow-PRET-3SG.OBJ
   ‘S/he borrowed the two books.’

⇒ The distribution is governed by the semantic concept of partitive specificity (Enç 1991) and D(iscourse)-linking.

⇒ We therefore follow Coppock’s (2012: 6) ‘Lexical Familiarity Hypothesis’: “If the referential argument of a phrase is lexically specified as familiar, then the phrase triggers the objective conjugation.”

– Contrary to what Coppock claims, however, we argue that this does not account for the local person objects (see 3.2.1), and this is where our proposal will diverge.

– Since definiteness is not the appropriate notion we replace the feature specification [+DEF] by [+PARTSpec].
4. Typological context of the conjugation split: Differential object marking (DOM)

4.1. The realisation of object case and object agreement

Object case and object agreement markers are typically restricted to noun phrases with either human (or animate) referents or with a definite (or specific) interpretation:

(22) Swahili (Givon 1976: 159):
   a. ni-li-soma   ki-tabu
       1SG-PAST-read    book
       ‘I read a book.’
   b. ni-li-ki-soma  ki-tabu
       1SG-PAST-CL7-read 7-book
       ‘I read the book.’
   c. ni-li-mw-ona  m-tu  m-moja
       1SG-PAST-CL1-see 1-person 1-one
       ‘I saw one person.’
   d. ni-li-mw-ona  yula  m-tu
       1SG-PAST-CL1-see DEF 1-person
       ‘I saw the person.’

(23) Maltese (Semitic; Fabri 1993:117f):
   a. Raj-t lil Pawlu.
      see-1SG CASE Paul
      ‘I saw Paul.’
   b. Xraj-t il-ktieb.
      buy-1SG DEF-book
      ‘I bought the book.’

Hierarchies responsible for (among others) DOM (Siewierska 2004, Aissen 2003):

(24) a. Person hierarchy:  1st > 2nd > 3rd
    b. Animacy Scale:  Hum(an) > Anim(ate) > Inan(imate)
    c. Definiteness Scale: Pronoun > Name > Definite > Indefinite Specific > NonSpecific

⇒ Object case and object agreement are avoided where the object does not have typical properties of subjects such as animacy or definiteness, hence is an unmarked object.

Although the Hungarian objective conjugation apparently displays only subject agreement, we are in fact dealing with object agreement. For object agreement it is cross-linguistically the rule rather than the exception to be restricted in terms of DOM. The ‘objective’ series specifies ‘1/2/3 → 3rd person object’. Besides, there is the portmanteau form -lVk: 1SG → 2.

What we are dealing with in Hungarian is:
• object agreement that is restricted in the sense of the hierarchies (24)
• at the lower end, in terms of the feature [±PARTSPEC]
• at the upper end, in terms of the person sensitivity (see 3.2.1)

4.2 The lower end of the hierarchy

Proposal: The Hungarian objective conjunction is analysed (i) as object agreement, (ii) as restricted in terms of DOM, and (iii) with [±PARTSPEC] as the threshold.

⇒ Explains why the presence of would-be subject agreement is governed by object properties
⇒ [–PARTSPEC] NPs are ‘unmarked’ objects, while [+PARTSPEC] objects NPs are more akin to subjects
⇒ The split is in line with DOM as in most other languages
5. The upper end of the hierarchy: 1st and 2nd person objects are ‘bad’ direct objects

Proposal: The person sensitivity is owing to the tendency of local person pronouns not displaying the full range of objects properties.

5.1 Typological context: Why local person objects are dispreferred

The most natural and ‘unmarked’ objects are low in salience, animacy, definiteness (see (24)), which means that 1st and 2nd person are the most unnatural and ‘marked’ (the worst, so to speak) conceivable objects.

– One reaction to ‘bad’ objects is to exclude them from object privileges.
– In Selkup (Samoyedic), according to Polinsky (1992: 415f), 1st and 2nd person pronouns fail to show direct object status altogether since they are not ‘passivisable’.
– Cf. also Bresnan et al. (2001): If the agent is lower on person scale than the patient, the passive is preferred/obligatory. Conversely, if the agent is higher the passive is dispreferred/precluded.

5.2 Accusative marking in Hungarian

The accusative is left out in certain environments:
– 1st and 2nd pronouns:

Hungarian has unusually complex accusative forms of the 1st and 2nd person pronouns.

Passage from the old folk song “Tavaszi szél” (‘Spring wind’):

(25) Hát én innmár kit válasszak, virágom, virágom.

so I now who.ACC choose.1SG.SUBJ flower. POR1SG flower. POR1SG

‘Who should I choose now?

my flower, my flower

Te eng-em-et ‘s én tég-ed-et, virágom, virágom.

You 1-POR1SG -ACC and I you- POR2SG -ACC flower. POR1SG flower.POR1SG

You me and I you my flower, my flower.’


you-2SGPOR-ACC love-1SG→2.OBJ

‘I love you.’ [Its you who I love.’]

b. Eng-em(-et) látsz.

me-1SGPOR-ACC see.2SG.SUBJ

‘You see me.’

– 3rd person lexical objects possessed by 1st or 2nd person: the accusative marker is only optional.

(27) a. Elveszett-t-em a tol-am(-at) / barát-om(-at)

lost-PAST-1SG.OBJ DEF pen-POR1SG -ACC/ friend- POR1SG-ACC

‘I lost my pencil/my friend.’

b. Elveszet-t-em a tol-ad(at)

lost-PAST-1.SG.OBJ DEF pencil- POR2SG -ACC

‘I lost your pencil.’

c. Elveszet-t-ed a tol-ad(-at)

lost-PAST-2SG.OBJ DEF pencil- POR2SG-ACC

‘You lost your pencil.’
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Our idea: For Hungarian the cease of accusative marking with local person objects is an analogy to the person sensitivity of the conjugation split.

Evidence comes from the inventory of portmanteau markers. Hungarian displays only one genuine such marker, namely for the combination 1SG→2.

⇒ Portmanteau suffixes are a common typological option. To the extent they exist in Uralic, they should be analysed as belonging to the objective series since they specify the object.

⇒ Local person arguments are ‘bad’ (marked) objects. The unavailability of objective conjugation is just one ramification of this status, others are the cease of accusative case and the unavailability of passive.

⇒ Hungarian resolves the conflict of faithfulness and markedness by allowing for just one combination with a ‘bad’ object, namely the least marked one in terms of the hierarchy 1 > 2 > 3, in the morphological inventory: 1SG→2 SG(/PL) IVk.

⇒ The objective series should be seen as portmanteau forms for the ‘unmarked’ combinations in which the object does not outrank the subject on the hierarchy: 1→3, 2→3, and 3→3

⇒ All ‘bad’ scenarios (1PL→2, 2→1, 3→1, and 3→2) are ignored in the objective conjugation. Instead the subjective series can only be employed.

6. Hungarian, Uralic and beyond: What exactly counts as a ‘robust’ transitive scenario?

6.1 The Uralic relatives: Ob-Ugric, Finno-Ugric, and Samoyed

The strategies of Uralic languages with respect to agreement with local objects:

(i) **Subjective**: Hungarian, Eastern Mansi & Eastern Khanty (Ob-Ugirc lacks person specification of the object); Samoyedic in general: Nenets Enets

(ii) **Objective**: Northern Khanty & Northern Mansi (no person specification of the object)

(iii) **Portmanteau** suffixes: Mordvin

(iv) **Special behaviour**: Selkup (subjective, accusative, but no passive)

6.2 What does it take, then, to be a robust transitive scenario? The internal argument must fulfill the full range of morphological, syntactic and referential properties of a direct object, including a presupposition w.r.t. either (i) (the existence) of the referent, or (ii) of situational facets (such as anterior state, end point, transition/change).
7. Conclusions

The paper has connected two inflectional splits (pertaining to possessor agreement and to verbal agreement, rsp.), which and are shown to display close morphological parallels.

- The two splits are best analysed referring to the theoretical notions of alienability, DOM, markedness, and transitivity
- The morphological parallels between the two splits are given a semantic rationale by assigning to j(a) the status of an exponent of a pragmatic relation:
  1. for alternatingly possessed nouns, in the sense that pragmatic possession involves a contextual relation (e.g., of ownership) which is not required for semantic possession.
  2. for verbs, in the sense of robustness of the transitive scenario, in which case the internal argument fulfils the full range of morphological, syntactic and referential properties of a direct object, thus including a presupposition w.r.t. (the existence of) the referent.

References


Ortmann, Albert (submitted) Definite article asymmetries and concept types: semantic and pragmatic uniqueness.

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APPENDIX

1. Conjugation paradigm of Mordvin (Erza), non-past:

<table>
<thead>
<tr>
<th></th>
<th>subjective</th>
<th>objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.SG</td>
<td>-n</td>
<td>-tan</td>
</tr>
<tr>
<td>2.SG</td>
<td>-t</td>
<td>-samak</td>
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<tr>
<td>3.SG</td>
<td>-i</td>
<td>-saman</td>
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<td>-tadiz’</td>
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<td>-tado/-dado</td>
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</tr>
<tr>
<td>3.PL</td>
<td>-it’</td>
<td>-samiz’</td>
</tr>
</tbody>
</table>

2. Family tree of Uralic

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THE URALIC LANGUAGE FAMILY

FINNO-UGRIC

UGRIC

Ob-Ugric

Khanty
Mansi

Hungarian

FINNIC

Northern
Nenets
Enets
Nganasan

Southern
Selkup
Kamass (†)
Mator (†)

SAAM LANGUAGE

PERMIAN

Komi
Udmurt

VOLGAIC

Mordvin
Mari

BALTO-FINNIC

Finnish
Livonian
Estonian …

SAAMI LANGUAGES

Lule Saami
Northern Saami

Pite Saami …
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