# Profile of reflexives in Hill Mari

**Abstract** The paper provides a detailed examination of reflexive strategies in the Kuznetsovo dialect of Hill Mari (Mari, Uralic) filling in an existing gap in the description of anaphoric elements in Uralic languages. Firstly, I focus on simple lexical reflexives derived from the stem *(ə̂)škə̂-*. Having examined their morphosyntactic and binding properties, I adopt several typological classifications and approach the Hill Mari data from a cross-linguistic perspective comparing them to anaphors in other Uralic languages. Secondly, I consider other reflexive strategies employed in Uralic languages, such as complex (reduplicative) reflexive pronouns and reflexive detransitivization of a predicate, and I demonstrate that these scenarios are unavailable in the variety of Hill Mari under discussion.

**Keywords**: reflexive pronouns, anaphors, reflexivization, typology of pronouns, Uralic, Mari.

## 1    Introduction

The present paper aims to provide a detailed examination of reflexive strategies in the Kuznetsovo dialect of Hill Mari (Mari, Uralic), contributing to the discussion of reflexivity in Uralic languages most prominently presented in Volkova (2014), where anaphors in Tegi Khanty, Meadow Mari, Komi-Zyrian, Besermyan Udmurt, and Shoksha Erzya are considered. With regard to Hill Mari, only a few sentences with reflexive *(ə̂)škə̂-* pronouns can be found in the existing grammars, such as Majtinskaja (1964), Savatkova (2002), Alhoniemi (2010), and Krasnova et al. (2017), and no thorough description of the properties of these items has yet been given. Hence, my goal is to close this gap in the exploration of anaphoric elements in Uralic languages, thereby making a step towards a comprehensive cross-linguistic study of reflexivity.

Firstly, I will discuss the morphosyntactic properties of dedicated reflexive pronouns built on the stem *(ə̂)škə̂-* (1) comparing them, on the one hand, to referential nominal phrases in Hill Mari and, on the other hand, to reflexive pronouns in other Uralic languages.[1]

(1)    a.    *Tə̂n'*    **škə̂m-et-ə̂m**    *jarat-et.*
              you    REFL-POSS.2SG-ACC    love-NPST.2SG
              'You love yourself.'

       b.    *Tə̂n'*    **ške**    *giš-än-et*    *šajə̂št-at.*
              you    REFL    about-LAT2-POSS.2SG    talk-NPST.2SG
              'You talk about yourself.'

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[1] Unless specified otherwise, all examples presented in this paper have been elicited from bilingual Russian – Hill Mari speakers who live in Kuznetsovo village, the Mari El Republic, Russia, during my field work in 2017 – 2019. Throughout the paper I use the term "Hill Mari" to refer to this particular variety of the language.

It should be noted that *ə̂škə̂- / ə̂ške* and *škə̂- / ške* are variants of the same root. Since in the Kuznetsovo variety of Hill Mari under consideration *škə̂-/ ške* are the more frequent forms, the examples presented in this paper include these anaphors.

Secondly, I will consider other reflexive strategies employed in Uralic languages along with simple reflexive pronouns, such as complex reflexive pronouns and reflexive detransitivization of a predicate. [2] Complex reflexives, that is, reduplicative anaphors built on the model REFL/PRON + REFL,[3] are attested in Meadow Mari, Erzya, Moksha, Nenets, i.a.;[4] an example from Meadow Mari is given in (2).

(2)  *Kažne* **šken-žə-m**      **ške**    *jörat-a.*
     every  REFL-POSS.3SG-ACC   REFL     like-NPST.3SG
     'Everyone likes himself.'          [Volkova 2014:66 (33a)]

The so-called reflexive Voice (i.e. syntactic reflexive detransitivization; see Section 5.2) can be found, for instance, in Estonian: compare the pairs *kord**u**ma* 'repeat' (intransitive) – *kord**a**ma* 'repeat something', *eemald**u**ma* 'withdraw' (intransitive) – *eemald**a**ma* 'withdraw something', etc., where reflexive variants are derived using the suffix -*u*- (Kask 1966). As will be shown in this paper, these two strategies are not attested in Hill Mari. Firstly, I will demonstrate that combinations of two juxtaposed **škə̑-/ške** pronouns that occasionally appear in Hill Mari texts and that may seem to be a complex reduplicative reflexive should, in fact, be analyzed as chance co-occurrence of a reflexive pronoun and a lexical intensifier, often syntactically unrelated to each other. Secondly, following Belova and Dyachkov (2019), I will argue that Hill Mari intransitive verbs with reflexive interpretations are inherent and do not result from a productive syntactic derivation.

Before we proceed, a few words should be said about the framework adopted in the paper. As stated at the very beginning of this section, the main purpose of this work is to examine various properties of reflexives in Hill Mari. I adopt the general terminology coined by Chomsky (1981) within the Government and Binding framework and currently used within the Minimalist theory; however, I refrain from discussing the general nature of reference and mechanisms of binding and I attempt to remain as 'theory-neutral' as possible, although I believe that the Hill Mari data can further help to support and confirm particular formal analyses of anaphoric pronouns.

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2 It is not uncommon for a language to employ several reflexivizing strategies; examples outside of the Uralic family include Turkic languages (e.g. Turkish, Chuvash; a reflexive suffix and lexical reflexive/emphatic pronouns), West and South Caucasian languages (e.g. Adyghe and Georgian; a reflexive prefix and lexical anaphors), Semitic languages (e.g. Arabic; verbal reflexivization and pronominal anaphors), i.a. (Geniušiene 1987; Testelets 2014)

3 A reviewer suggested that the term "complex" as used throughout the paper might appear to be misleading. 'One word' agreeing reflexive pronouns can also be considered complex, in comparison with, for instance, morphologically simple clitic anaphors, since they bear possessive and case marking and behave similarly to referential DPs. However, to emphasize the difference between 'one word' and 'two word' anaphors, common in Uralic languages (reflexive clitics will not be in the center of the discussion) and to avoid further confusion, I chose the terms "simple" and "complex" and not, for instance, "complex" and "supercomplex".

4 See Volkova (2014) on Meadow Mari and Erzya, Toldova et al. (2019) on Moksha, and Nikolaeva (2014) on Nenets.

As I intend to incorporate the description of Hill Mari reflexives into the general discussion of reflexivity across the world's languages, I adopt the following two typological classifications of anaphoric elements: (i) the formal typology of reflexives based on their morphosyntactic distribution developed by Déchaine and Wiltschko (2017), and (ii) the typology of pronouns based on their syntactic behavior and requirements imposed on antecedents proposed by Kiparsky (2002). The classifications will be described in more detail later in the paper.

The rest of the paper is structured as follows. Section 2 describes the morphosyntactic behavior of Hill Mari reflexives, while Section 3 focuses on their binding properties examining the antecedent and locality restrictions. Section 4 and Section 5 discuss reflexivity in Hill Mari within a broader context drawing data from other Uralic languages. In particular, Section 4 considers simple anaphoric pronouns and Section 5 is devoted to complex reflexives and reflexive detransitivization. Section 6 concludes the paper.

## 2 Morphosyntactic properties of *ške/škə̑-* reflexives

This section describes the morphosyntactic properties of Hill Mari lexical *ške/škə̑-* reflexives and demonstrates that these items pattern with personal pronouns and possessed nominal phrases. This becomes relevant in the second part of the section, where I approach the Hill Mari data from the point of view of the Déchaine and Wiltschko's (2017) typology for reflexive markers.

### 2.1 Paradigm

Reflexive pronouns in Hill Mari are represented by the following items derived from the same lexical root: (i) the agreeing *škə̑(m)-* forms, which bear possessive and case morphology and are used in most of the argumental positions, and (ii) the non-agreeing invariant *ške,* often described as the nominative form (Savatkova 2002; Alhoniemi 2010), which appears with postpositions and as a prenominal possessive modifier (3).[5]

(3)  a.  *Tə̑n'*  **škə̑m-et-ə̑m**  *už-at.*

you  REFL-POSS.2SG-ACC  see-NPST.2SG

'You see yourself.'

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5 Aside from the reflexive use, both agreeing *škə̑-* forms and the invariant *ške* modifier can also serve as intensifying (emphatic) pronouns (i). A detailed examination of such examples lies beyond the scope of the paper and is not relevant to the issues under discussion.

(i)  a.  Maša  dokument-vlä-m  ške(=ok)  podpisäj-ä.

Maša  document-PL-ACC  REFL=EMPH  sign-NPST.3SG

'Maša signs the documents herself.' (without help)

b.  Tengecə̈  mə̑n'  načal'n'ik-ə̑m  škə̑m-žə̈-m  už-ə̑n-am.

yesterday  I  boss-ACC  REFL-POSS.3SG-ACC  see-PST2-1SG

'Yesterday I saw the boss himself.'

b.  *Mǝn'  mešäk-ǝm  **ške**  do-k-em  šǝpš-al-ǝn-am.*

I  sack-ACC  REFL  to-ILL2-POSS.1SG  pull-ATT-PST2-1SG

'I pulled the sack towards myself.'

The paradigm of the reflexive forms is given in Table 1.

Table 1.  The paradigm of *ške / škǝ-* forms[6]

|  | Unmarked (nominative) | Accusative | Genitive | Dative |
|---|---|---|---|---|
| 1SG | ške | škǝm-em-ǝm | škǝm-em-ǝn | š(kǝ)-län-em |
| 2SG |  | škǝm-et-ǝm | škǝm-et-ǝn | š(kǝ)-län-et |
| 3SG |  | škǝm-žǝ-m | škǝm-žǝ-n | š(kǝ)-län-žǝ |
| 1PL |  | škǝm-nä-m | škǝm-nä-n | š(kǝ)-län-nä |
| 2PL |  | škǝm-dä-m | škǝm-dä-n | š(kǝ)-län-dä |
| 3PL |  | škǝm-ǝštǝ-m | škǝm-ǝštǝ-n | š(kǝ)-län-ǝštǝ |

A few remarks should be made regarding the paradigm. Firstly, as identified in the table above, the nominative form *ške* is always unmarked.[7] Thus, when it is used as a complement of a PP, the possessive marker appears on the postposition (compare, for instance, (3b) and (4)).

(4)  *\*Mǝn'  mešäk-ǝm  **škǝm-em**  do-kǝ̂  šǝpš-ǝl-ǝn-am.*

I  sack-ACC  REFL-POSS.1SG  to-ILL2  pull-ATT-PST2-1SG

'I pulled the sack towards myself.'

Secondly, *škǝm-* is the morphologically marked non-nominative stem that is immediately followed by a possessive marker. A possessive suffix on reflexives obligatorily precedes accusative and genitive case markers and follows the dative marker; in this respect, reflexives

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6 As mentioned above, the forms given in this table have been elicited from speakers of the Kuznetsovo variety of Hill Mari. In the literary Hill Mari, the forms *ǝškǝ(m)-* are most commonly used. Furthermore, in the literary Hill Mari shortened dative forms are reported only in plural; cf. in Savatkova (2002) *ǝšlännä, ǝšländä, ǝšlänǝštǝ*, but only *ǝškǝlänem, ǝškǝlänet, ǝškǝlänžǝ*. As for the Kuznetsovo variety under consideration, both full (i.e. *škälän-*) and shortened (*šlän-*) dative forms are judged as grammatical. They appear in texts with the similar frequency; cf. in the corpus of the Kuznetsovo variety of Hill Mari (63522 tokens) gathered by the Moscow State University Hill Mari field group: 3 entries for *škǝlän-* vs. 3 entries for *šlän-*.

7 A reviewer notes that, in several varieties of Hill Mari, caseless forms with a third person possessive marker (*ǝškežǝ, ǝškeštǝ*) appear frequently. In the Kuznetsovo dialect under consideration possessed caseless forms are attested only as intensifiers, i.e. in emphatic contexts, and not as 'pure' anaphors.

(i)  a.  *Tǝn'  ške  giš-än-et  kogo-n  šukǝ̂-n  šajǝ̂št-at.*
you  REFL  about-LAT2-POSS.2SG  big-ADV  much-ADV  talk-NPST.2SG
'You talk a lot about (you) yourself'.

b.  *?Tǝn'  škǝm-et  giš-än  kogo-n  šukǝ̂-n  šajǝ̂št-at.*
you  REFL-POSS.2SG  about-LAT2  big-ADV  much-ADV  talk-NPST.2SG
'You talk a lot about you yourself (and not about someone else)'.

resemble personal pronouns and possessed nominal phrases, although the latter allow more variation in dative (5).[8]

(5)  a.  *Tǝn'*  **škǝm-et-ǝm** /  ***škǝ-m-et***  *už-at.*

you  REFL-POSS.2SG-ACC  REFL-ACC-POSS.2SG  see-NPST.2SG

'You see yourself.'

b.  *Tǝn'*  **š(kǝ)-län-et** /  ***škǝm-et-län***  *knigä-m  näl-ǝn-ät.*

you  REFL-DAT-POSS.2SG  REFL-POSS.2SG-DAT  book-ACC take-PST2-2SG

'You bought yourself a book.'

c.  *Tǝn'*  *mäm-nä-m* /  ***mäm-ǝm-nä*** /  *täng-et-ǝm* /

you  we-POSS.1PL-ACC  we-ACC-POSS.1PL  friend-POSS.2SG-ACC

***täng-ǝm-et***  *už-at.*

friend-ACC-POSS.2SG  see-NPST.2SG

'You see us / your friend.'

d.  *Tǝn'*  *mä-län-nä* /  ***mä-nä-län*** /  *täng-län-et* /

you  we-DAT-POSS.1PL  we-POSS.1PL-DAT  friend-POSS.2SG-DAT

*täng-et-län*  *knigä-m*  *näl-ǝn-ät.*

friend-DAT-POSS.2SG  book-ACC  take-PST2-2SG

'You bought us / your friend a book.'

Thirdly, similarly to personal pronouns and animate nouns, reflexives prohibit locative and caritive markers, which can be used with referential inanimate nominal phrases (compare (6a) and (6b) to (6c)).[9]

(6)  a.  ***Pet'a* **škǝm-ǝškǝ-žǝ** / **škǝm-žǝ-škǝ**  *kǝzǝ-m  šǝr-al-ǝn.*

Petja  REFL-ILL-POSS.3SG  REFL-POSS.3SG-ILL  knife-ACC  thrust-ATT-PST2

Intended: 'Petja thrust the knife into himself.'

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8 1PL and 2PL personal pronouns bear possessive markers in all case forms; 1SG and 2SG personal pronouns bear the corresponding possessive suffixes only in dative. There are no dedicated third person pronouns in Hill Mari and the demonstratives *tǝdǝ* 'that' and *nǝnǝ* 'those' are used instead.

9 It should be mentioned that locative markers can appear in non-locative contexts and, in this case, they become allowed even with animate nouns; cf. examples in (i) where illative functions as translative.

(i)  a.  Mǝn'i  pr'incesǝ-š  sär-n-ält-ǝn.
toad  princess-ILL  turn-DETR-MED-PST2
'The toad turned into a princess.'

b.  Pr'inc  möskä-škǝ  sär-n-ält-ǝn.
prince  bear-ILL  turn-DETR-MED-PST2
'The prince turned into a bear.'

However, even in such contexts it is impossible for a locative marker to appear on a reflexive pronoun (ii).

(ii)  a.  *Pr'inc  škǝm-žǝ-š(kǝ) /  škǝ-škǝ-žǝ  sär-n-ält-ǝn.
prince  REFL-POSS.3SG-ILL  REFL-ILL-POSS.3SG  turn-DETR-MED-PST2
Intended: 'The prince turned (back) into himself.'

b.  Pr'inc  ugǝc  ške  sǝn-žǝ-m  näl-ǝn.
prince  again  REFL  appearance-POSS.3SG-ACC take-PST2
'The prince turned (back) into himself.' (Literally: 'The prince took his appearance again.')

b.     \*Pet'a Oleg-ǝš /     šarǝk-ǝ̂š     kǝ̈zǝ-m     šǝ̂r-al-ǝ̂n.

        Petja Oleg-ILL     sheep-ILL     knife-ACC     thrust-ATT-PST2

        Intended: 'Petja thrust the knife into Oleg / a sheep.'

c.     *Pet'a*     *pušängǝ-škǝ*     *kǝ̈zǝ-m*     *šǝ̂r-al-ǝ̂n.*

        Petja        tree-ILL     knife-ACC     thrust-ATT-PST2

        'Petja thrust the knife into a tree.'

## 2.2    Reflexive pronouns vs. DPs

Building upon their (2002) discussion of various sub-types of personal pronouns distinguished by their structural size, Déchaine and Wiltschko (2017) propose that reflexive markers in the world's languages also form a heterogeneous group and differ in terms of their morphosyntactic behavior and structural properties. The two most widespread types of reflexives are so called D-reflexives, whose distribution is similar to that of referential nominal phrases (DPs), and clitic-like φ-reflexives. DP-like reflexives can be found in Germanic languages (for instance, English *self* anaphors), while anaphoric clitics are common, for example, in Romance languages (for instance, *se* in French and Spanish and *si* in Italian).

     Reflexive pronouns in Hill Mari pattern with English *self* reflexives in that their distributional properties are parallel to those of referential nominal phrases.[10] Firstly, reflexives in Hill Mari can both saturate various arguments and function as predicates; compare (7a) to a similar example in (7b), where the predicate is a deictic pronoun.[11]

(7)    a.     *Mǝ̈n'*   ***ške***   /     ***\*škǝ̈m-em***     *a-m*       *ǝ̂l.*

           I     REFL         REFL-POSS.1SG     NEG.NPST-1SG   be

           'I am not myself.'

     b.     *Mǝ̈n'*   *tön'*    *ǝ̂l-am.*

           I      you    be-NPST.1SG

           'I am you.'

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10 A detailed discussion of the structural status of nominal phrases in Hill Mari (an articleless language) lies beyond the limits of this paper. I follow Pleshak (2019) and assume them to be DPs; see also Ljutikova (2017) arguing for the presence of DPs in other articleless languages.

11 In (7a) the agreeing form is ruled out due to an independent restriction: an anaphor cannot bear a possessive marker without being overtly marked for case. Although most of the examples in this section contain *škǝ-* reflexives, I assume, by extension, that the properties under discussion are characteristic of *ške* as well. For instance, similarly to *škǝ-* anaphors in (13), *ške* can also be coordinated with a referential DP (i).

(i)    a.     Mǝ̈n'   [ške   dä     täng]   do-k-em       mešäk-ǝ̈m     šǝ̂pš-ǝ̂l-ǝ̂n-am.

            I     REFL   and    friend   to-ILL2-POSS.1SG   sack-ACC      pull-ATT-PST2-1SG

            'I pulled the sack towards myself and my friend.'

     b.     Mǝ̈n'   [Pet'a   dä     Maša]   do-kǝ̂     mešäk-ǝ̈m      šǝ̂pš-ǝ̂l-ǝ̂n-am.

            I     Petja   and    Maša    to-ILL2   sack-ACC       pull-ATT-PST2-1SG

            'I pulled the sack towards Petja and Maša.'

Secondly, reflexives allow various kinds of modifiers, including postpositive adjuncts, appositive constructions, adjectival and nominal modifiers (8).

(8)    a.    *(Ti    fotokartočka-štə̂)    už-am    [škə̂m-em-ə̂m    pi    dono].*

            this    photo-IN    see-NPST.1SG    REFL-POSS.1SG-ACC    dog    with

            '(On this photo) I see myself with a dog.'

    b.    *Mə̂n'    [škə̂m-em-ə̂m    sämə̂rə̂k-ə̂m]    už-am.*

            I    REFL-POSS.1SG-ACC    young-ACC    see-NPST.1SG

            'I see myself young.'

    c.    *Mə̂n'    [sämə̂rə̂k    škə̂m-em-ə̂m]    už-am.*

            I    young    REFL-POSS.1SG-ACC    see-NPST.1SG

            (i)    'I see myself young.'

            (ii)    'I, being now young, see myself.'

    d.    *Mə̂n'    [škə̂m-em-ə̂m    ə̂žar    platjə̂-n-ə̂m]    už-am.*

            I    REFL-POSS.1SG-ACC    green    dress-GEN-ACC    see-NPST.1SG

            'I see myself in a green dress.'

    e.    *Mə̂n'    [ə̂žar    platjə̂-n    škə̂m-em-ə̂m]    už-am.*

            I    green    dress-GEN    REFL-POSS.1SG-ACC    see-NPST.1SG

            (i)    'I see myself in a green dress.'

            (ii)    'I, in a green dress, see myself.'

Thirdly, a constituent headed by a reflexive can be independently negated (9); parallel examples with a sentential negation are given in (10). Note that, although *agə̂l* can appear in a broad range of contexts, it can only be used as a constituent negation and never accompanies finite verbs (except for desideratives; see Kirillova 2017 for a discussion). Thus, the examples in (9) support the idea that anaphoric pronouns in Hill Mari do not form a morphosyntactic complex with the main predicate.

(9)    a.    *Mə̂n'    tə̂gə̂r-ə̂štə̂    [škə̂m-em-ə̂m    agə̂l]    už-ə̂n-am.*

            I    mirror-IN    REFL-POSS.1SG-ACC    NEG    see-PST2-1SG

            'In the mirror I saw not myself.'

    b.    *Tə̂n'    olma-m    [š(kə̂)-län-et    agə̂l]    näl-ə̂n-ät.*

            you    apple-ACC    REFL-DAT-POSS.2SG    NEG    take-PST2-2SG

            'You took an apple not for yourself.'

(10)    a.    *Mə̂n'    tə̂gə̂r-ə̂štə̂    škə̂m-em-ə̂m    š-ə̂m    už.*

            I    mirror-IN    REFL-POSS.1SG-ACC    NEG.PST1-1SG    see

            'I did not see myself in a mirror.'

b.     *Tǝn'*    *olma-m*      **š(kǝ)-län-et**      *š-ǝc*      *näl.*

you     apple-ACC     REFL-DAT-POSS.2SG     NEG.PST1-2SG     take

'You did not take an apple for yourself.'

This property also unites reflexive pronouns and referential possessed DPs. In this, the anaphor *škǝ-* differs from reflexive clitics common in other languages: for instance, anaphor clitics in Spanish form a single morphophonological unit with the predicate and cannot scope independently under negation (11).

(11)    *Pedro*    *no*     *se*        *vio*       *en*    *el*     *espejo.*

Pedro   NEG    REFL.3.ACC    see.PST.3SG    in     DET    mirror

'Pedro did not see himself in the mirror.'

Not available: 'In the mirror Pedro saw not himself.'

That reflexive pronouns in Hill Mari are not clitics is further evident in that, similarly to other nominal arguments, they can be separated from the predicate and the rest of the clause in focus constructions (12).

(12)    a.     *Tǝn'*    *[škǝm-et-ǝm*       *vele]*    *jarat-et.*

you     REFL-POSS.2SG-ACC    only    love-NPST.2SG

'You love only yourself.'

b.     *Tǝn'*    *[Maša-m*      *vele]*    *jarat-et.*

you     Maša-ACC     only    love-NPST.2SG

'You love only Maša.'

Finally, reflexives and referential nominal phrases in Hill Mari can be coordinated (13a). This provides additional support for the claim that *škǝ-* anaphors are full DPs, since clitics and structurally smaller elements cannot coordinate with larger phrases (Kayne 1975); unsuccessful attempts to construct a parallel example in Spanish are provided for comparison in (13b) and (13c).

(13)    a.     *Fotokartočka-štô Pet'a*   *[škǝm-žǝ-m*        *dä*   *vätö-žǝ-m]*

photo-IN        Petja    REFL-POSS.3SG-ACC   and   wife-POSS.3SG-ACC

*už-ôn.*

see-PST2

'In the picture Petja saw himself and his wife.'

b.     *\*Pedro se*    *vio*    *y*    *{a*     *su*     *mujer /*     *el*     *gato}.*

Pedro REFL    saw    and    PREP   his    wife       DET    cat

Intended: 'Pedro saw himself and his wife / the cat.'

c.     *\*Pedro vio*    *se*    *y*    *{a*     *su*     *mujer /*     *el*     *gato}.*

Pedro saw    REFL   and    PREP   his    wife       DET    cat

Intended: 'Pedro saw himself and his wife / the cat.'

To summarize, *ške/škǝ-* anaphors are similar in their behavior to referential DPs and personal pronouns and are morphosyntactically independent from the predicate, unlike reflexive clitics and affixes in many languages.[12] Although from the typological perspective it is rather common for reflexives derived using the pattern REFL + POSS to behave as full DPs, there is no strict one-to-one correspondence. For instance, the Russian reflexive pronoun *sebja* also patterns with referential DPs in its behavior, however, morphologically it does not contain a possessive agreement marker (Testelets 2001). At the same time, POSS-*i'* anaphors in Kaqchikel (a Mayan language spoken in Guatemala) resemble on the surface English and Uralic pronouns but are similar to Spanish reflexive clitics in their syntactic distribution (Burukina 2019).      In the next section I focus on the binding properties of *ške/škǝ-* reflexives, namely the antecedent and locality restrictions. This will allow us to determine the status of Hill Mari reflexives according to the typology of reflexive pronouns developed by Kiparsky (2002) (discussed in detail in Section 3.3).

## 3     Binding properties of *ške/škǝ-* reflexives

### 3.1     Antecedents

In many genetically and geographically unrelated languages, including, for example, Inuit (Eskimo–Aleut; Bittner 1994), Shona (Atlantic-Congo; Storoshenko 2009), and Russian (Slavic; Testelets 2001), reflexives are subject-oriented, that is, they can be bound only by a subject antecedent, and are often restricted to the direct/indirect object position (see, for example, the reflexive affix in Shona [Bantu] and reflexive clitics in French [Déchaine and Wiltschko 2017]). As will be demonstrated in this section, Hill Mari *škǝ-* reflexives can occur in all structural positions suitable for ordinary nominal phrases, except for the clausal subject position, and normally can be bound by any c-commanding co-argument. In exempt positions[13] (i.e. where there is no c-commanding co-argument: within postpositional phrases or nominal phrases) reflexives allow coreference with almost any locally available pragmatically suitable member of a sentence, the only restriction being the word order: the antecedent must linearly precede

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12 Additionally, it should be mentioned that reflexives in Hill Mari cannot be used as reciprocals; compare this restriction to the ambiguous behavior of Romance clitics or anaphoric morphemes in some polysynthetic languages (see, for instance, Labelle 2008 and Déchaine and Wiltschko 2017 on the clitic *se* in French and Letuchiy 2006 on the reflexive/reciprocal *zǝ* morpheme in Adyghe, i.a.). In Hill Mari, distinct lexical items express reciprocity, namely, the agreeing compound *ikänä-iktǝ* (i), which resembles *each other* in English and *drug druga* in Russian.
(i)      Mä       ikänä-iktǝ-län-nä          otkrytkǝ-m         kolt-enä.
         we       each.other-DAT-POSS.1PL   card-ACC          send-NPST.1PL
         'We send each other postcards.'
13 The idea that some structural positions might be exempt from applying principles that control the distribution of anaphors was put forward by Pollard and Sag (1992) and Reinhart and Reuland (1993). I further adopt the distinction between binding and coreference, following Grodzinsky and Reinhart (1993). I reserve the term "binding" to refer, mainly, to bound variable uses of anaphors and I use the term "coreference" in all other cases.

the anaphor.[14] In what follows I will consider the reflexive – antecedent combinations in more detail one by one, providing examples.3.1.1 Reflexives with co-arguments

The most typical context for a reflexive pronoun is when an internal argument syntactically realized as a direct or indirect object is co-indexed with the external argument (the subject) (14).

(14)   a.    *Mǝn'*   **škǝm-em-ǝm**     *tǝgǝr-ǝštǝ*     *už-am.*

           I      REFL-POSS.1SG-ACC   mirror-IN     see-NPST.1SG

           'I see myself in a mirror.'

   b.    *Mǝn'*   **škǝ-län-em**     *cüdej-em.*

           I      REFL-DAT-POSS.1SG   surprise-NPST.1SG

           'I am surprised by myself.'

The question arises whether a direct object can be an antecedent to an anaphoric indirect object or vice versa. Unfortunately, in Hill Mari there are no inherently ditransitive predicates suitable to examine the relation between these two arguments, as the translation equivalents for such English ditransitive verbs as *show*, *demonstrate*, or *introduce*, typically used in the diagnostic, are derived causative verbs. The one non-derived verb *puaš* 'give' is not typically used in situations where the Theme and the Recipient refer to the same person (as in *#I gave Mary to herself*); however, idiomatic examples with a reciprocal pronoun suggest that coreference can be established between a pronoun and a linearly preceding antecedent, with a direct object binding the indirect object evaluated as more acceptable (15).

(15)   a.    *Svjaščennik*   *sämǝrǝk-vlä-m***ikänä-ikt-ǝštǝ-län**     *pu-en.*

           priest         young-PL-ACC each.other-POSS.3PL-DAT     give-PST2

           'The priest gave the young couple to each other.'

   b.    ??*Svjaščennik*   **ikänä-ikt-ǝštǝ-län**     *sämǝrǝk-vlä-mpu-en.*

           priest        each.other-POSS.3PL-DAT   young-PL-ACC give-PST2

           'The priest gave the young couple to each other.'

   c.    ?*Svjaščennik*   *sämǝrǝk-vlä-län*    **ikänä-ikt-ǝštǝ-m**     *pu-en.*

           priest         young-PL-DAT     each.other-POSS.3PL-ACC    give-PST2

           'The priest gave the young couple to each other.'

   d.    *\*Svjaščennik*   **ikänä-ikt-ǝštǝ-m**     *sämǝrǝk-vlä-län*    *pu-en.*

           priest         each.other-POSS.3PL-ACC   young-PL-DAT     give-PST2

           'The priest gave the young couple to each other.'

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14 The relevance of linear precedence alongside c-command has been emphasized by Langacker (1969), Jackendoff (1972), Lasnik (1976), Barss and Lasnik (1986), Kuno and Takami (1993), Bresnan (1998), Bruening (2014), among others.

As for derived predicates, both inherently intransitive and transitive verbs can be causativized. In the first case, the Causee is marked accusative and behaves as an ordinary direct object in that it can be bound by the subject (16).

(16)　*Vrač*　　**škȝm-žȝ-m**　　*ȝlȝž-t-en.*
　　　doctor　　REFL-POSS.3SG-ACC　revive-CAUS-PST2
　　　'The doctor revived himself.'

If an inherently transitive verb is causativized, the dative Causee can be bound only by the subject (Causer), but not by the direct object,[15] complying with the c-command requirement (17).

(17)　a.　*Ivan$_k$*　**škȝ-län-žȝ***$_{*i/k}$　*Maša-m$_i$*　*anž-ȃkt-en.*
　　　　　Ivan　REFL-DAT-POSS.3SG　Maša-ACC　look-CAUS-PST2
　　　　　'Ivan showed Maša to himself.'
　　　　　Not available: 'Ivan showed Maša to herself.'

　　　b.　*Ivan$_k$*　*Maša-m$_i$*　**škȝ-län-žȝ***$_{*i/k}$　*anž-ȃkt-en.*
　　　　　Ivan　Maša-ACC　REFL-DAT-POSS.3SG　look-CAUS-PST2
　　　　　'Ivan showed Maša to himself.'
　　　　　Not available: 'Ivan showed Maša to herself.'

The dative DP referring to a Causee can itself be an antecedent to an anaphoric direct object (18). These examples are often ambiguous between the 'Causee antecedent' and the 'Subject antecedent' readings if a possessive marker on the reflexive matches both participants.

(18)　a.　*Ivan$_k$*　*Maša-lan$_i$*　**škȝm-žȝ-m***$_{i/k}$　*anž-ȃkt-en.*
　　　　　Ivan　Maša-DAT　REFL-POSS.3SG-ACC　look-CAUS-PST2
　　　　　'Ivan showed herself / himself to Maša.'

　　　b.　*Ivan$_k$*　**škȝm-žȝ-m***$_{?i/k}$　*Maša-lan$_i$*　*anž-ȃkt-en.*
　　　　　Ivan　REFL-POSS.3SG-ACC　Maša-DAT　look-CAUS-PST2
　　　　　Only: 'Ivan showed himself to Maša.'

### 3.1.2　Reflexives in exempt positions

The two typical contexts for a reflexive without a co-argument are in the complement position of a postposition and as a possessor within a nominal phrase; in the latter case, either a genitive agreeing form *škȝm*-POSS-*n* or the invariant *ške* can be used.[16] An anaphor in an exempt

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15 For a discussion of non-periphrastic causative constructions in Hill Mari see Letuchiy and Kolomackij (2012).
16 All speakers of Hill Mari that I have consulted prefer to use agreeing *škȝm*-POSS-GEN in the possessive function, although they also generally accept examples with the possessive invariant *ške*. In the latter case a possessive marker on the head noun is required (ia); in case of an agreeing reflexive possessor the head noun can remain unmarked (ib).

(i)　a.　Mȝn'　ške　täng*(-em)-ȝm　　　už-am.
　　　　I　REFL　friend-POSS.1SG-ACC　　see-NPST.1SG
　　　　'I see my friend.'
　　　b.　Pet'a　škȝm-žȝ-n　　rod'it'el'-vlä(-žȝ)-m　　　jarat-a.

position can be coreferent with any of the main predicate arguments; a few examples are given in (19–21). As further illustrated in (21), potential interpretational ambiguity is usually resolved via the choice of the possessive marker on the anaphor.

(19)    Subject antecedent

    a.    *Mǝn'   mešäk-ǝm   **ške**   do-k-em   šǝpš-al-ǝn-am.*
         I   sack-ACC   REFL   to-ILL2-POSS.1SG   pull-ATT-PST2-1SG
         'I pulled the sack towards myself.'

    b.    *Ol'eg   **škǝm-žǝ-n** /   ?**ške**   sǝravač-ǝm   jam-d-en.*
         Oleg   REFL-POSS.3SG-GEN   REFL   key-ACC   be.lost-CAUS-PST2
         'Oleg lost his key.'

(20)    Direct object antecedent

    a.    *Mǝn'   Pet'a-m   **ške**   giš-än-žǝ   a-m   jaratâ.*
         I   Petja-ACC   REFL   about-LAT2-POSS.3SG   NEG.NPST-1SG   like
         'I dislike Petja because of him.'

    b.    *Maša-m   **škǝm-žǝ-n**   äkä(-žǝ)   saga   už-ǝn-am.*
         Maša-ACC   REFL-POSS.3SG-GEN   older.sister-POSS.3SG   near   see-PST2-1SG
         'I saw Maša next to her older sister.'

(21)    Indirect object antecedent

    a.    *Mǝn'   Pet'a-lan   ške   giš-än-žǝ/   giš-än-**em***
         I   Petja-DAT   REFL   about-LAT2-POSS.3SG   about-LAT2-POSS.1SG
         *šajǝšt-ǝn-am.*
         tell-PST2-1SG
         'I told Petja about him / myself.'

    b.    *Maša-lan   **škǝm-žǝ-n**   knigä(-žǝ)-m   pu-en-äm.*
         Maša-DAT   REFL-POSS.3SG-GEN   book-POSS.3SG-ACC   give-PST2-1SG
         'I gave Maša her (own) book.'

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    Petja   REFL-POSS.3SG-GEN   parent-PL-POSS.3SG-ACC   love-NPST.3SG
    'Petja loves his parents.'
Note that, occasionally, a possessive reflexive may co-occur with another dependent of the head noun; in this case, coreference is established between the two, complying with the linear order restriction (ii). As mentioned above, agreeing forms are preferable in such contexts.
(ii)    a.    Pet'a-n   Tanja-n   fotografij-žǝ
         Petja-GEN   Tanja-GEN   photo-POSS.3SG
         'Petja's picture of Tanja'
    b.    Pet'a-n   škǝm-žǝ-n /   ?ške   fotografij-žǝ
         Petja-GEN   REFL-POSS.3SG-GEN   REFL   photo-POSS.3SG
         'Petja's picture of himself'
    c.    *Škǝm-žǝ-n /   #ške   Pet'a-n   fotografij-žǝ
         REFL-POSS.3SG-GEN   REFL   Petja-GEN   photo-POSS.3SG
         Only: 'the picture of Petja himself' (an emphatic interpretation)

In addition to this, a reflexive pronoun in an exempt position can be coreferent with a DP within another postpositional/nominal phrase (22).

(22)  a.  *Mǝn'  Vanja<sub>i</sub> giš-än     **ške<sub>i</sub>**  veldǝk-šǝ            šajǝšt-ǝn-am.*
I      Vanja  about-LAT2   REFL  because.of-POSS.3SG  tell-PST2-1SG
'I told about Vanja because of him.'

b.  *Maša<sub>i</sub> saga  **škǝm-žǝ-n<sub>i</sub>**        knigä(-žǝ)-m        už-ǝn-am.*
Maša  near  REFL-POSS.3SG-GEN  book-POSS.3SG-ACC  see-PST2-1SG
'I saw her book next to Maša.'

c.  *[Maša-n<sub>i</sub>      toštǝ̂  madǝ̂š-vlä(-žǝ)-m]   **[škǝm-žǝ-n<sub>i</sub>***
Maša-GEN     old    toy-PL-POSS.3SG-ACC  REFL-POSS.3SG-GEN
*šǝ̂žar(-žǝ̂)-lan]           pu-en-ǝt.*
younger.sister-POSS.3SG-DAT  give-PST2-3PL
'They gave Maša's old toys to her sister.'

d.  *[Maša-n<sub>i</sub>      šǝ̂žar(-žǝ̂)-lan]        **[škǝm-žǝ-n<sub>i</sub>**           toštǝ̂*
Maša-GEN     younger.sister-POSS.3SG-DAT  REFL-POSS.3SG-GEN    old
*madǝ̂š-vlä(-žǝ)-m]    pu-en-ǝt.*
toy-PL-POSS.3SG-ACC  give-PST2-3PL
'They gave Maša's sister her old toys.'

The only restriction in case of an exempt position is the linear precedence of an antecedent; compare, for instance, (22a) and the ungrammatical (23), where the antecedent follows a reflexive pronoun.[17]

(23)  *\*Mǝn' **ške**  giš-än-žǝ              Vanja  veldǝk      šajǝšt-ǝn-am.*
I    REFL  about-LAT2-POSS.3SG  Vanja  because.of  tell-PST2-1SG
Intended: 'I told about Vanja because of him.'

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17 In the case of a possessive reflexive within the matrix subject no linear precedence is required for the antecedent (ia). I assume that such examples involve pragmatic coreference, which is supported by the fact that the antecedent for such anaphors does not have to be syntactically present at all (ib). Similar behavior has been attested for anaphors in Russian where the possessive pronoun *svoj* is ambiguous and can be used either as a reflexive (bound variable) or as a non-anaphoric modifier synonymous to the adjective *sobstvennyj* 'own' (Paducheva 1983).

(i)   a.  Škǝm-žǝ-n /            ?ške   ät'ä-žǝ-ävä-žǝ
REFL-POSS.3SG-GEN      REFL  father-POSS.3SG-mother-POSS.3SG
Maša-m              už-ǝn-ǝt.
Maša-ACC            see-PST2-3PL
'Her parents saw Maša'.

b.  Škǝm-ǝn /    ?ške   rod'it'el'-vlä      fs'egda  palš-at.
REFL-GEN      REFL  parent-PL          always  help-NPST.3PL
Literally: 'Own parents always help.'

## 3.2 Locality

The binding domain for *škə̂-* reflexives and their antecedents is restricted to a minimal clausal constituent with an overt subject. In Hill Mari, several types of clause-like constituents can be embedded: (i) finite complement clauses with overt complementizers, (ii) infinitival complement clauses, (iii) nominalized clausal constituents with genitive or nominative embedded subjects, (iv) non-finite and finite adjunct clauses. Among them, argumental infinitival constituents with a covert subject are transparent, that is a reflexive in an embedded clause can have its antecedent in the matrix clause. Constituents that have an overt subject – embedded finite clauses, nominalizations, and adjunct clauses – are opaque. This is illustrated below.

A reflexive pronoun embedded in a non-finite clause can be bound either by the local (implicit) subject, denoted here as Ø, or the matrix (explicit) one (24).

(24) a. *Pet'a$_k$ Maša-lan$_i$ [Ø$_i$ **škə̂m-žə̂-m$_{i/k}$** anž-al-aš]*

   Petja Maša-DAT REFL-POSS.3SG-ACC see-ATT-INF

   *razrešäj-en.*

   permit-PST2

   'Petja permitted Maša to look at herself / him.'

b. *Pet'a$_k$ Maša-lan$_i$ [Ø$_i$ **škə̂m-žə̂-n$_{i/k}$** / $^{?}$**ške$_{i/k}$***

   Petja Maša-DAT REFL-POSS.3SG-GEN REFL

   *täng-vlä(-žə̂)-m sə̂gə̂r-äl-äš] jad-ə̂n.*

   friend-PL-POSS.3SG-ACC call-ATT-INF ask-PST2

   'Petja asked Maša to call her / his friends.'

Nominalized and adverbial clauses with an overt subject are opaque for anaphor binding; thus, in (25) the matrix subjects cannot be antecedents for the embedded reflexives and the sentences receive unambiguous interpretations.

(25) a. *Ivan$_k$ äšə̂ndär-ä [Pet'a-n$_i$ / Pet'a$_i$*

   Ivan remember-NPST.3SG Petja-GEN Petja

   ***škə̂m-žə̂-m$_{i/*k}$** uvažajə̂-mə̂(-žə̂)-m].*

   REFL-POSS.3SG-ACC respect-NMLZ-POSS.3SG-ACC

   'Ivan remembers that Petja respects himself.'

   Not available: 'Ivan remembers that Petja respects him.'

b. *[Maša$_i$ **škə̂m-žə̂-m$_{i/*k}$** šel-mə̂kə̂] Ol'ga$_k$ sə̂gə̂r-äl-Ø kolt-en.*

   Maša REFL-POSS.3SG-ACC hit-CVB Olga cry-ATT-CVB send-PST2

   'Olga cried out when Maša hit herself.'

   Not available: 'Olga cried out when Maša hit her.'

c.      <sup>%</sup>*Ol'ga<sub>k</sub>   sӓgӓr-äl-Ø    kolt-en      [Maša<sub>i</sub>   **škӛm-žӛ-m**<sub>i/*k</sub>      šel-mӛkӛ]*.

Olga      cry-ATT-CVB   send-PST2    Maša      REFL-POSS.3SG-ACC hit-CVB

'Olga cried out when Maša hit herself.'

Not available: 'Olga cried out when Maša hit her.'

The same is true for all finite clauses: arguments, adjuncts, and relative clauses, which are also opaque for binding (26).

(26) a.   *Pet'a<sub>k</sub> Jura-lan<sub>j</sub> keles-en  [što   Maša<sub>i</sub> **škӛm-žӛ-m**<sub>i/*j/*k</sub>      vele jarat-a]*.

Petja Jura-DAT say-PST2  that   Maša  REFL-POSS.3SG-ACC only love-NPST.3SG

'Petja said to Jura that Maša loves only herself.'

b.   *Maša<sub>k</sub> sӓgӓr-äl-Ø kolt-en     [kӛnam Pet'a<sub>i</sub> **škӛm-žӛ-m**<sub>i/*k</sub>     sev-äl-ӓn]*.

Maša  cry-ATT-CVB send-PST2 when    Petja  REFL-POSS.3SG-ACC hit-ATT-PST2

'Maša cried out when Petja hit himself.'

c.   *Tӓn'  ӛdӓrämäš-ӛm už-ӛn-at     [kӛdӛ tӓn'ӛ-m /*

you   woman-ACC   see-PST2-2SG  that   you-ACC

***škӛm-et-ӛm**            päl-ä]*.

REFL-POSS.2SG-ACC           know-NPST.3SG

'You saw a woman who knows you.'

It may appear occasionally that, similarly to *self* reflexives in English, Hill Mari reflexives can allow coreference with a non-local overt subject; consider, for instance, (27), where the matrix subject binds the embedded pronoun, despite the presence of the local overt subject.

(27)   *Mӛn'  keles-en-äm    što    Pet'a         jarat-a      mӛn'-ӛm /*

I       tell-PST2-1SG  that   Petja         love-NPST.3SG I-ACC

***škӛm-em-ӛm**         (vele)*.

REFL-POSS.1SG-ACC     only

'I said that Petja loved only me.'

Notice however, that in sentences parallel to (27), the pronoun *škӛ-* should rather be analyzed as emphatic (an intensifier) and not anaphoric. In (28) the emphatic pronoun *škӛm-em-ӛm* is a focused constituent and can be accompanied by the particle *vele* 'only'. If another constituent is focused, the pronoun *škӛ-* can no longer be used; for instance, in (28) the constituent 'only Petja' is emphasized as the only focus and, thus, *škӛm-em-ӛm* cannot be interpreted as an intensifier; the anaphoric reading in this case is also unavailable.

(28)   *Mӛn'  keles-en-äm    što    Pet'a vele   mӛn'-ӛm /*

I       say-PST2-1SG  that   Petja only   I-ACC

***škӛm-em-ӛm**        jarat-a*.

REFL-POSS.1SG-ACC   love-NPST.3SG
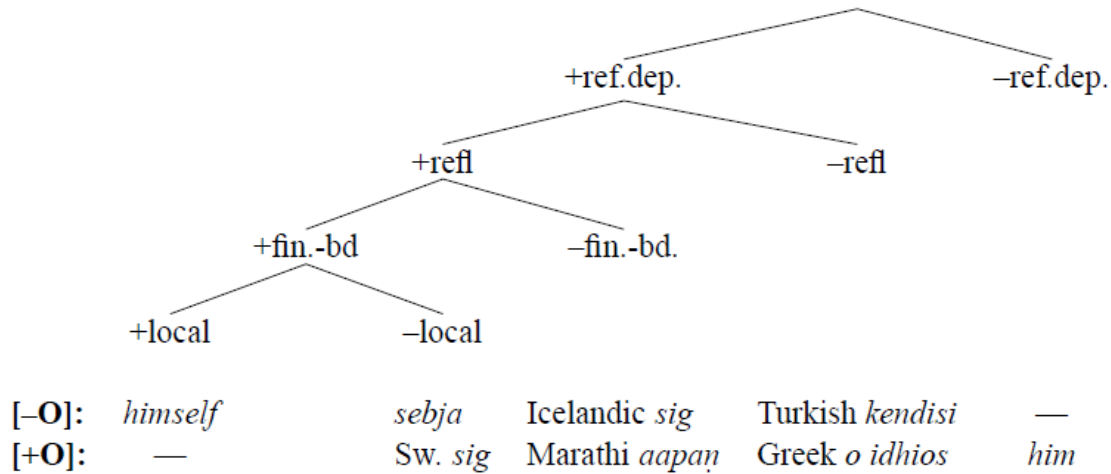
'I said that only Petja loves me.'

### 3.3 *ške/škə̑-* in the typology of pronouns

To address the Hill Mari data from the typological perspective, I adopt the typology of pronouns based on their syntactic properties developed by Kiparsky (2002). Kiparsky follows Faltz (1977) and suggests that the binding properties of reflexives and reciprocals vary along at least the following two dimensions: (i) the size of the domain within which they must be bound, and (ii) the nature of the antecedent in the clausal domain. Importantly, these two characteristics are *lexical* properties of individual anaphors, not a syntactic parameter of the language as a whole, and thus may differ for distinct groups of pronouns.

As for the first parameter, Kiparsky identifies a hierarchy of five successively more inclusive antecedent domains; the category of a pronoun is determined by the maximum domain in which its antecedent may be found. Firstly, there are referentially independent vs. referentially dependent pronouns. The former can introduce a new entity into the discourse, for instance via deictic use (as in *It is me!*), while the latter must have at least a discourse antecedent. Secondly, referentially dependent pronouns are divided into reflexives and non-reflexives, depending on whether they require a syntactic antecedent. Thus, non-reflexives are allowed with a context antecedent in such examples as *John$_i$ is here. I saw him$_i$.* Thirdly, reflexive pronouns may be finite-bound, that is, requiring an antecedent within the same finite clause, or non-finite-bound, that is, allowing an antecedent beyond the finite clause they are located in. Finally, among the finite-bound pronouns locally vs. long-distance bound are distinguished. The former must be bound by a constituent in the first accessible subject domain, while the latter are not subject to this requirement.

In addition to this, the second parameter – the nature of the antecedent – splits each of the above mentioned categories in two based on the obviation property [+/− Obviative] ([+/− O]). The Obviation principle is formulated as follows: „coarguments have disjoint reference" (Kiparsky 2002: p. (2); see also similar definitions in Hellan 1983; 1988; Sells 1986; Farmer and Harnish 1987). For instance, English personal pronouns are [+Obviative], since in examples similar to *John$_k$ hit him$_{i/*k}$* the pronoun and the coargumental DP cannot share the referent. In contrast, English reflexives are [-Obviative]: coreference between arguments of a predicate is enforced if one of them is a reflexive pronoun (*John$_k$ hit himself$_{*i/k}$*). This yields altogether ten types of pronominal elements (29).

(29)    The typology of pronouns [Kiparsky 2002:(62)]



| | | | | | |
|---|---|---|---|---|---|
| **[–O]:** | *himself* | | *sebja* | Icelandic *sig* | Turkish *kendisi* | — |
| **[+O]:** | — | | Sw. *sig* | Marathi *aapaṇ* | Greek *o idhios* | *him* |

Within this typology, Hill Mari *škə̂-* reflexives occupy the same position as the Russian reflexive *sebja*. On the one hand, they are referentially dependent, reflexive, finite-bound, but long-distance, in a sense that non-finite clauses with an obligatorily implicit subject are transparent for binding. On the other hand, Hill Mari agreeing *škə̂-* anaphors are non-obviative, i.e. they allow coreference between co-arguments, for instance, a Causee and a Theme in ditransitive constructions ((18); Section 3.1.2). The invariant *ške* reflexive is almost impossible to characterize in terms of obviation, since it is used mostly in exempt positions, without co-arguments; see, however, an example in f.n. 16, reproduced in (30), where a possessive *ške* is bound by another dependent of the same head noun.

(30)  *Pet'a-n*        *škə̂m-žə̂-n /*              ˀ***ške***   *fotografij-žə̂*
      Petja-GEN    REFL-POSS.3SG-GEN   REFL      photo-POSS.3SG
      'Petja's picture of himself'

Having established this, I will proceed by comparing the properties of *škə̂-* reflexives to those of anaphors in other Uralic languages expanding the cross-linguistic comparison of reflexive strategies presented in Volkova (2014).


## 4       Simple anaphoric pronouns in other Uralic languages

The purpose of this section is to provide a brief yet thorough overview of anaphoric pronouns used in Uralic languages of different branches. The next section is devoted to the two other reflexive strategies, namely complex reflexives and verbal reflexivization.

### 4.1    Morphosyntax

Agreeing reflexives are common in Uralic languages. Consider, for example, *es'-*POSS reflexive forms in Erzya and Moksha (the two Mordvin languages), *maga-*POSS reflexive pronouns in Hungarian, *itse-*POSS reflexives in Finnish, *xər°q-*POSS anaphoric items in Nenets,

*ač'/aš'/as*-POSS reflexives in Udmurt, i.a.[18] A common belief is that reflexives in different Uralic languages are often derived from similar lexical roots that can be traced back to a proto-Uralic word meaning 'shadow, soul' (Majtinskaja 1964). This pattern is not unique among the world's languages: as pointed out by König and Siemund (1999), most lexical reflexives stem from words denoting different body parts and related notions. A similar observation has also been made by Schladt (2000), whose typology distinguishes between eight main lexical sources for reflexives, including body part nouns, nouns denoting a person or personality and nouns meaning 'soul, spirit'. In Table 2 I provide partial paradigms of agreeing reflexives in several Uralic languages belonging to different branches to bring out the general pattern and to capture the cross-linguistic microvariation within the language family.

Table 2.        Reflexive pronouns in Uralic languages[19]

| | 1SG.NOM | 1SG.ACC | 1SG.DAT/PART |
|---|---|---|---|
| Hill Mari (Mari) | *ške* <br> REFL | *škə̑m-em-ə̑m* <br> REFL-POSS.1SG-ACC | *š(kə̑)-län-em* <br> REFL-DAT-POSS.1SG |
| Meadow Mari (Mari)[20] | *ške(n-em)* <br> REFL-POSS.1SG | *ške-m-ə̑m* <br> REFL-POSS.1SG-ACC / <br> *šken-em-ə̑m* <br> REFL-POSS.1SG-ACC | *ška-lan-em* <br> REFL-DAT-POSS.1SG / <br> *šken-em-lan* <br> REFL-POSS.1SG-DAT |
| Erzya[21] (Mordvin) | *es'* <br> REFL | -- | *es'-t'e-n'* <br> REFL-DAT-POSS.1SG |
| Finnish (BF) | *\*itse-* <br> REFL | *itse-ni* <br> REFL-POSS.1SG | *itse-ä-ni* <br> REFL-PART-POSS.1SG |
| Hungarian | *maga-m* | *maga-m-at* | *maga-m-nak* |

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18 See Majtinskaja (1964), Volkova (2014), and Toldova et al. (2019) on the Mordvin languages; Kenesei et al. (1998) on Hungarian; Trosterud (1993) on Finnish; Nikolaeva (2014) on Nenets; and Volkova (2014) on Udmurt.

19 The data are taken from the following sources: Sammallahti (1998), Kenesei et al. (1998), Trosterud (1993), Prozorova (2002), Idrisov (2013), Nikolaeva (2014), Volkova (2014).

20 A few important remarks should be made regarding the Meadow Mari forms.
According to Volkova (2014), in Sernur-Morkin Mari possessed nominative forms are allowed. However, these forms are not listed in traditional grammars, such as Alhoniemi (2010), and only caseless anaphors with third person possessive markers – *škež* and *škešt* – are reported in Krasnova et al. (2017). Furthermore, the form *škenem*, for instance, does not appear in the corpus of literary Mari and only three entries are found in the Meadow Mari Social Media Corpus. In contrast, *škež* has 372 and 417 occurrences, respectively (although those, without a doubt, include uses of *škež* as an emphatic pronoun).
Similarly, even though all the ACC/DAT forms listed in the table are judged as grammatical by native speakers (as reported by Volkova 2014 and as I confirmed with a native speaker of the same dialect), they appear in corpora with the drastically different frequencies (the numbers correspond to the corpus of literary Mari and the media corpus, respectively): *ške-m-ə̑m 167/279 vs. šken-em-ə̑m 0/3; ška-lan-em 46/36 vs. šken-em-lan 0/0.* DAT-POSS/POSS-DAT has been reported by Volkova (2014) for the Sernur-Morkin variety of Meadow Mari and confirmed by a native speaker of the same dialect that I consulted.

21 In the Mordvin languages the unmarked *es'* reflexive is used as a possessive pronoun or a dependent of a postposition; marked (agreeing) forms of *es'* are available only in dative case.

| (Ugric) | REFL-POSS.1SG | REFL-POSS.1SG-ACC | REFL-POSS.1SG-DAT |
|---|---|---|---|
| Komi-Zyrian (Pechora) (Permic) | *ač'-ym* <br> REFL-POSS.1SG | *as'-ym-əs* <br> REFL-POSS.1SG-ACC | *as-ly-m* <br> REFL-DAT-POSS.1SG |
| Besermyan Udmurt[22] (Permic) | *ač'-im* <br> REFL-POSS.1SG | *as-ə̂m-e* <br> REFL-POSS.1SG-ACC / <br> <sup>%</sup>*as-lə̂-me* <br> REFL-ACC-POSS.1SG | *as-lə̂-m* <br> REFL-DAT-POSS.1SG / <br> <sup>%</sup>*as-mə̂-lə̂* <br> REFL-POSS.1SG-DAT |
| Sami (Sami) | *\*iehča-* <br> REFL | *ieža-n* <br> REFL-POSS.1SG | -- |
| Tundra Nenets (Samoyedic)[23] | *xərəq-n°* <br> ~ *xər°q-n'i* <br> REFL-1SG | *(xər°q-n'i) pix°də-m'i* <br> REFL-1SG REFL-ACC / <br> *(xər°q-n'i) s'iqm'i* <br> REFL-1SG I.ACC | *xər°q-n'i n'a°n'i* <br> REFL-1SG I.DAT.1SG |

As evident from the data presented above, Hill Mari anaphors closely follow the general pattern: REFL + POSS + CASE. One noticeable language-specific parameter is the number of cases and availability of number marking (consider, for instance, the absence of dative and partitive in Sami).

Further microvariation is attested with regard to morpheme ordering. As discussed in Section 2 of this paper, Hill Mari anaphors require a strict order of morphemes: agreement markers must precede accusative/genitive case markers but obligatorily follow the dative marker. At the same time, as shown in the table above, in Meadow Mari (the Sernur-Morkin variety) reflexive pronouns are reported to allow some variation in morphemic order in dative case (Volkova 2014). I do not have an immediate explanation for this variation, but it is important to acknowledge it. It should also be noted that the microvariation in ordering of morphemes in anaphors matches that in ordering of morphemes in personal pronouns. As was shown in (5d), 1PL and 2PL pronouns in Hill Mari do not allow the POSS-DAT/DAT-POSS alternation. However, in Meadow Mari such pairs of forms as *mə-lan-na* we-DAT-POSS.1PL /

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22 The form *as-lə̂-me* REFL-ACC-POSS.1SG is given in Volkova (2014); it is not recognized by other specialists on the dialect that I consulted. The form *as-mə̂-lə̂* REFL-POSS.1SG-DAT is normally analyzed as first person plural, '(to) us'; however, it can also appear referring to a single speaker. The form *as-ə̂-lə̂* REFL-POSS.1SG-DAT, which is expected considering the paradigm of possessive markers, does not appear in texts. I am grateful to Vladimir Ivanov for his invaluable help in checking the Besermyan Udmurt data presented in the paper.
23 The forms are reproduced from Nikolaeva (2014:48, 49, 184); I preserve the original glosses.

*mem-na-lan* we-POSS.1PL-DAT and *tə-lan-da* you.PL-DAT-POSS.2PL / *ten-da-lan* you.PL-POSS.2PL-DAT are attested.[24]

The three standouts from the general system are Estonian and two Ugric languages – Mansi and Khanty. Firstly, Estonian makes no person distinction and exploits no possessive markers for reflexives; for instance, the forms *enese* GEN.SG, *ennast* PART.SG, *eneste* GEN.PL, and *endid* PART.PL can be used with any singular / plural antecedents, respectively, regardless of their person characteristic.

Secondly, neither Mansi nor Khanty have dedicated lexical reflexives. In Mansi, intensified forms of personal pronouns can be used as anaphors bound by a local antecedent; consider the following paradigms as an example (Table 3).

Table 3.        Mansi personal / emphatic pronouns

| Personal pronoun | Emphatic pronoun | Emphatic as reflexive |
|---|---|---|
| *aːm* <br> 1SG <br> 'I' | *am-ki* <br> 1SG-EMPH <br> 'I myself' | *am-ki-naː-m*[25] <br> 1SG-EMPH-na -POSS.1SG <br> '(me) myself' |
| *taːn* <br> 3PL <br> 'they' | *taːn-ki* <br> 3PL-EMPH <br> 'they themselves' | *taːn-ki-naː-nəl* <br> 3PL-EMPH-na-DAT <br> 'to (them) themselves' |

Khanty also allows locally bound pronominals; in contrast with Mansi, no emphatic marker is present (Rombandeeva 1973; Nikolaeva 1995, Volkova 2014).

(31)    a.      *Učitel$_i$*          *łuveł$_{i/k}$ išək-s-əłłe.*

           teacher          he.ACC praise-PST-SG.3SG

           'The teacher praised him/himself.'

       b.      *Nemχojat$_i$*      *łuveł$_{i/k}$*        *ănt*      *išək-ł-əłłe.*

           no.one          he.ACC              NEG      praise-NPST-SG.3SG

           'No one praises himself / him.'          [Volkova 2014:24 (46)]

The exact reasons behind this variation remain to be adequately addressed in future work. For the purposes of the present research it suffices to emphasize that the reflexive pronouns in Hill Mari fall in with the general Uralic pattern and to mention the exceptions among Uralic languages.

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24 For a discussion of the variation in morpheme ordering in nominal groups cf. Simonenko and Leontjev (2012).
25 While *ki* is described as an emphatic suffix, the morpheme *naː* is not glossed separately in the source (Riese 2001).

**4.2    Binding properties**

In Section 3.2 we discussed syntactic properties of Hill Mari *škə̑-* reflexives and demonstrated that they are long-distance non-obviative anaphors requiring a syntactic antecedent within the minimal clause containing an overt subject. Since most traditional grammars of Uralic languages do not consider reflexives in detail, it is hard to provide a comprehensive comparison of anaphors in Hill Mari with their counterparts in terms of their syntactic properties. Fortunately, there exists a study, by Volkova (2014), which compares reflexives in five Uralic languages within the formal generative framework; those are Khanty (the Shuryshkary dialect), Komy-Zyrian (the Pechora dialect and the Izhma dialect), Udmurt (the Besermyan Variety), Meadow Mari (the Sernur-Morkin dialect), and Erzya (the Shoksha dialect). Volkova's findings alongside with information on the Hill Mari data are summarized in Table 4.

Table 4.    Binding properties of reflexive pronouns in Uralic languages

|  | Hill Mari | Meadow Mari | Komi Zyrian | Besermyan Udmurt | Erzya |
|---|---|---|---|---|---|
| Reflexive stem | *škə̑(m)-* | *ške(n)-* | *as-* | *as-* | *es'-* |
| Subject oriented | No | Yes | Yes | Yes | Yes |
| Binding domain | Clause with an overt subject | Finite clause | Finite clause | Clause with a subject | Clause with a subject |
| Exempt positions | Allowed | Allowed | Allowed | Allowed | Allowed |

As can be seen in the table, Hill Mari mostly patterns with other Uralic languages with respect to the binding properties of its lexical reflexives, with two differences. Firstly, in (32) and (33) I reproduce Volkova's examples for Meadow Mari and Besermyan Udmurt showing that reflexives in these languages, unlike in Hill Mari, can only have subject antecedents.

(32)    Meadow Mari

    a.    <sup>??</sup>*Petr   mem-na-m*        ***ška-lan-na***        *onč-ə̑kt-a.*

        Peter we-POSS.1PL-ACC    REFL-DAT-POSS.1PL    look-CAUS-NPST.3SG

        Intended: 'Peter shows us to ourselves.'

21

b. ??*Petr   mə-lan-na*        **ške-na-m**        *onč-əkt-a.*

   Peter   we-DAT-POSS.1PL        REFL-POSS.1PL-ACC    look-CAUS-NPST.3SG

   Intended: 'Peter shows us to ourselves.'

c. *Petr   mem-na-m*        *mə-lan-na*        *onč-əkt-a.*

   Peter   we-POSS.1PL-ACC        we-DAT-POSS.1PL    show-NPST.3SG

   'Peter shows us to ourselves.' [Volkova 2014:71 (42)]

(33)  Besermyan Udmurt

a. *Ataj$_i$   vož'ma-t-i-z*        *vân-ez-lâ$_j$*        **aš'-s-e$_{i/*j}$.**

   father   watch-TR-PST2-3        brother-POSS.3-DAT    REFL-POSS.3-ACC

   'The father showed himself to the brother.'

b. *Ataj$_i$   vož'ma-t-i-z*        *vân-ez-lâ$_j$*        **so-je$_{*i/j}$.**

   father   watch-TR-PST2-3        brother-POSS.3-DAT    he-ACC

   'The father showed to the brother himself.' [Volkova 2014:119 (24)]


Secondly, recall that *škə-* reflexives in Hill Mari are finite-bound but non-local. This is also true for reflexives in Meadow Mari (34) and Komi-Zyrian, while anaphors in Besermyan Udmurt (35), a language closely related to Komi-Zyrian, and in Erzya have a smaller binding domain – that is a minimal clause with any (overt or covert) subject.

(34)  Meadow Mari non-local reflexives

*Üdər$_i$   rveze$_j$   de-č'   [Ø$_j$   **ška-lan-že$_{i/j}$**        pört-əm   əšt-aš]   jod-ən.*

girl   boy   near-EL   REFL-DAT-POSS.3SG   house-ACC   make-INF   ask-PST2

'The girl asked the boy to build her / himself a house.'        [Volkova 2014:71 (44)]

(35)   Besermyan Udmurt local reflexives

*Ivan$_i$   kos-i-z*        *kâšno-jez-lâ$_j$   [Ø$_j$   *asâ-z-e$_i$ /        so-je$_i$   sajka-t-ânâ].*

Ivan   tell-PST2-3   wife-POSS.3-DAT        REFL-POSS.3-ACC   he-ACC   rise-CAUS-INF

'Ivan told his wife to wake him up.' [Volkova 2014:120 (32)]

Thus, we have observed that Hill Mari, on the one hand, follows the pattern of binding behavior most common within the Uralic language family. On the other hand, the behavior of reflexive pronouns in Hill Mari still differs from that of lexical anaphors in several other Uralic languages, including Meadow Mari (the sister language), which suggests an important direction for future research. [26]

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[26] Developing a formal analysis for reflexive strategies in Meadow Mari, Volkova (2014) builds heavily upon Reuland's (2011) idea that, if two co-arguments of a predicate are coreferent, this either happens as the result of valence reduction and consequent bundling of the thematic roles or becomes possible if one of the arguments (the variable) is made formally distinct from the first one, being 'protected' by some extra morphology. While it is beyond the limits of the paper to present an argumentative response to Volkova's analysis, a few words could be said about the original Reuland's approach, which, in turn, can be traced back to the earlier work by Reinhart and Reuland (1993).Regarding reflexivization strategies, Hill Mari turns out to be quite similar to English: (i) simple (one-word) anaphors are built based on the pattern REFL-POSS (cf. in English *your-self* and *my-self*); (ii) no

In the next section I continue comparing Hill Mari to other Uralic languages focusing on the two reflexive strategies reported as being common for the family: complex reflexives and reflexive detransitivization.

## 5    Other reflexivizing strategies

### 5.1    Complex reflexives

According to Volkova (2014), Meadow Mari (the closest relative of Hill Mari) allows complex (reduplicative) reflexive pronouns derived using the pattern *ške(n)- ške* (36).[27]

(36)    *Student-vlak*    **ška-lan-əšt**    *ške*    *kusarəše-vlak-əm*    *ojər-en*

    student-PL    REFL-DAT-POSS.3PL    REFL    interpreter-PL-ACC    choose-CVB

    *nal-ən-ət.*

    take-PST2-3PL

    'The students chose the interpreters for themselves.' [Volkova 2014:66 (31a)]

The complex anaphor *ške(n)- ške* is subject oriented; unlike simple anaphors (*škenže*) it is strictly local and must always be bound by a coargument (37). In addition to this, the reflexive *ške(n)- ške* cannot be used in non-coargument position, for instance in a postpositional phrase.

(37)    *Üdəri rvezej de-č'    [Øj **ška-lan-že***    ***ške**\*i/j pört-əm    əšt-aš]    jod-ən.*

    girl    boy    next-EL    REFL-DAT-POSS.3SG    REFL    house-ACC    make-INF    ask-PST2

    'The girl asked the boy to build himself/*her a house.' [Volkova 2014:68 (36)]

At the same time, speakers of Hill Mari always interpret sentences with the equivalent sequence *škə(m)- ške* as a combination of an agreeing reflexive and an ivariable *ške* intensifier (38).

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reduplicative reflexives are attested (see Section 5.1), and (iii) valency reduction, while possible, happens in the lexicon and is not a productive syntactic operation (see Section 5.2). As mentioned above, Reuland proposes that locally bound anaphoric pronouns must include additional 'protective' morphology. In Hill Mari, *škə-* can be assumed to perform this function and there would be no need for additional 'layers', hence, no reduplicative reflexives.

The distribution of simple anaphors in Hill Mari also closely resembles that of English reflexives (cf. Section 2 and Section 3) and it might be suggested that the two are regulated by the same mechanism. In particular, it might be assumed that *škə-* undergoes (covert) head movement to the verb whenever it is possible, thus reflexivizing the predicate and indicating that two of its arguments are coreferent. When such movement is not possible (i.e. in an exempt position), reflexivity is not enforced and the anaphor can be co-indexed with almost any other nominal phrase in a clause. Hill Mari and English anaphors differ in the size of their binding domains: non-finite clauses without an overt subject are transparent for *škə-* pronouns (see Section 3.2) but not for *self* reflexives (*\*Maryi persuaded John to kiss herselfi*). One possible explanation for this is that, while the movement of *self* is preferable in English, the movement of *škə(m)* is merely optional in Hill Mari. Assuming that reflexives can be co-referent not only with the arguments and adjuncts of the same clause, but also with the contextual variable ADDRESSEE and SPEAKER, projected in the left periphery (cf. Landau 2015 and references therein) and that non-finite clauses with an obligatorily null subject are anaphoric in their nature (that is, there contextual variables are valued by the participants of the matrix clause; cf. Sundaresan and McFadden 2009), it follows that an anaphor in such context can have, for instance, the matrix subject as its antecedent.

27 Complex reflexives are also found in the Izhma dialect of Komi Zyrian (*ač'ys as'se*) and the Mordvin languages (*es' pr'et'*) (Vokova 2014). Outside of the Uralic language family complex reflexives are used, for instance, in Icelandic (Germanic), Telugu (Dravidian), i.a. (Haspelmath 2008).

(38)  a.  *Mǝn'*  *mešäk-ǝm*  **ške**  *do-k-em*  $^{??}$*(ške)*

I  sack-ACC  REFL  to-ILL2-POSS.1SG  REFL

*šǝpš-al-ân-am.*

pull-ATT-PST2-1SG

'I pulled the sack towards myself.'

Commentary: 'A weird example. It is obvious that the speaker pulled the sack himself, and there is no need to emphasize this.'

b.  *Mǝn'*  **škǝm-em-ǝm**  **ške**  *tǝgǝr-ǝštä*  *už-âm.*

I  REFL-POSS.1SG-ACC  REFL  mirror-IN  see-PST1.1SG

'I myself saw myself in the mirror.'

Commentary: 'As if I used to be blind and now I can see.'

Note that the reverse sequence *ške škǝ(m)-* is allowed and should also be analyzed as an occasional combination of the emphatic pronoun and an agreeing reflexive, each of them interpreted separately. This is shown by ambiguous readings of examples similar to (39): here, an invariant intensifier can be interpreted either as adverbial, related to the matrix subject, or as adnominal with the anaphor as an antecedent.

(39)  a.  *Mǝn'*  *(ške)*  **škǝm-em-ǝm**  *tǝgǝr-ǝštä*  *už-âm.*

I  REFL  REFL-POSS.1SG-ACC  mirror-IN  see-PST1.1SG

(i) 'In the mirror I MYSELF saw myself.'

(ii) 'In the mirror I saw ME MYSELF.'

b.  *Tǝn' (ške)*  **ške**  *giš-än-et*  *kogo-n*  *šukâ-n*  *šajâšt-at.*

you  REFL  REFL  about-LAT2-POSS.2SG  big-ADV  much-ADV  talk-NPST.2SG

(i) 'YOU YOURSELF talk a lot about yourself.'

(ii) 'You talk a lot about YOU YOURSELF.'

Volkova demonstrates that, in the case of Meadow Mari, *ške(n)- ške* is, indeed, a single anaphoric unit without an additional emphatic meaning; this is further confirmed by the fixed order and obligatory adjacency of the parts of an item. The word order issue has already been addressed above; both *škǝ(m)- ške* and *ške škǝ(m)-* receive similar interpretations: reflexive + intensifier. As for the adjacency, both sequences can be discontinuous (40) with no change in meaning.

(40)  a.  *Mǝn'*  **škǝm-em-ǝm**  *tǝgǝr-ǝštä*  **ške**  *už-Ø-âm.*

I  REFL-POSS.1SG-ACC  mirror-IN  REFL  see-PST1-1SG

'In the mirror I MYSELF saw myself.'

b.  *Mǝn'*  **ške**  *tǝgǝr-ǝštä*  **škǝm-em-ǝm**  *už-Ø-âm.*

I  REFL  mirror-IN  REFL-POSS.1SG-ACC  see-PST1-1SG

'In the mirror I MYSELF saw myself.'

The only context where *ške škǝ(m)-* is opaque for intervention is when the intensifier is interpreted as adnominal, since in such cases in general it serves as a modifier within a nominal phrase and cannot be separated from its head by a matrix constituent (41).

(41)  a.  *Mǝn'*  **ške**  *(\*tǝgǝr-ǝštǝ)*  **škǝm-em-ǝm**  *už-Ø-ǝm.*

          I  REFL  mirror-IN  REFL-POSS.1SG-ACC  see-PST1-1SG

          'I saw ME MYSELF.'

     b.  *Mǝn'*  **ške**  *(\*tǝgǝr-ǝštǝ)*  *načal'n'ik-ǝm*  *už-Ø-ǝm.*

          I  REFL  mirror-IN  boss-ACC  see-PST1-1SG

          'I saw the boss HIMSELF.'

Taking these data into account, I argue that, unlike in Meadow Mari, in Hill Mari neither the sequence *škǝ(m)- ške* nor *ške škǝ(m)-* can be analyzed as a complex reduplicative anaphor; both sequences should be decomposed into a reflexive and an intensifier, each pertaining its normal distribution and contributing its meaning. Thus, only simple reflexive pronouns are available in this language.

## 5.2  Reflexive detransitivization

Another reflexive strategy common among Uralic languages is to detransitivize a verb to create a reflexive predicate; that is, to assign two of thematic roles of the verb to one of its arguments. This technique is exploited, for instance, in Estonian, Khanty, Mansi, Komi Zyrian, and Besermyan Udmurt;[28] several examples are given in (42).

(42)  a.  Estonian

          *kordama* 'repeat something' – *kord-**u**-ma* 'repeat' (intransitive)

          *eemaldama* 'withdraw something' – *eemald-**u**-ma* 'withdraw' (intransitive)

     b.  Khanty

          *l'oχǝttɨ* 'wash something' – *l'oχǝt-**ɨjl**-tɨ* 'wash oneself'

          *eŋχǝstɨ* 'undress someone' – *eŋχǝs-**ɨjl**-tɨ* 'undress oneself'

     c.  Komi-Zyrian (Izhma dialect)

          *os'kyny* 'praise someone' – *os'j-**ys'**-yny* 'praise oneself'

          *br'it'itny* 'shave someone' – *br'it'it-**č'**-yny* 'shave oneself'

     d.  Besermyan Udmurt

          *kal'l'anǝ̂* 'hang something' – *kal'l'a-**š'k**-ǝ̂nǝ̂* 'hang oneself'

          *kǝ̂l'ǝ̂nǝ̂* 'undress someone' – *kǝ̂l'-**iš'k**-ǝ̂nǝ̂* 'undress oneself'

          *ǝ̂bǝ̂nǝ̂* 'shoot someone' – *ǝ̂b-**iš'k**-ǝ̂nǝ̂* 'shoot oneself'

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28 Shoksha Erzya is exceptional in this respect: it encodes reflexivity by omitting the object and having only subject agreement on the verb. Nenets is another well-known standout as it exploits a special reflexive conjugation.

As reported by Volkova (2014), this detransitivizing strategy is also used in Meadow Mari; the suffixes *-əlt-* and *-alt-* serve as morphological exponents of reflexivity. Compare (43a) and (43b): unlike in the first case, where the Agent and the Theme are distinct, in the second case, both roles are assigned to the same argument, 'Ivan'.

(43)  a.  *Ivan   el-na-m                aral-en.*
          Ivan    country-POSS.1PL-ACC defend-PST2
          'Ivan defended our homeland.'

      b.  *Ivan    saj-ən            aral-alt-ən.*
          Ivan     good-ADV          defend-DETR-PST2
          'Ivan defended himself well.' [Volkova 2014:63 (21)]

The question arises whether a similar syntactic strategy is productive in Hill Mari. At first glance, the answer seems to be positive: similar pairs of transitive – reflexive predicates can be found in Hill Mari (44).

(44)  a.  *Vas'a   mə̂šk-**ə̂lt**-ə̂n.*
          Vasya   wash-MED-PST2
          'Vasya washed himself.'

      b.  *Vas'a   od'ejal dono   leved-**ält**-ə̈n.*
          Vasya   blanket with   cover-MED-PST2
          'Vasya covered himself with a blanket.'

Despite the surface similarity between the Hill Mari and Meadow Mari examples above, I follow Belova and Dyachkov (2019) and contend that syntactic reflexive detransitivization is not operative in Hill Mari and that verbs similar to those in (44) should be considered inherently reflexive (i.e. their intransitive nature is determined in the lexicon and is not a product of a syntactic derivation).

Several facts support this claim. Firstly, note that the marker *-alt-* is ambiguous between the following interpretations: middle/decausative, reflexive, and reciprocal (Savatkova 2002; Galkin 1966; Salo 2015). Only the middle (decausative), as illustrated in (45), can be considered a productive derivation.

(45)  a.  *Mə̂ndə̂ra        kenvac-maš-eš šüt-**ält**-ən.*
          ball             fall-NMLZ-LAT unwind-MED-PST2
          'The ball (of thread) unwound from falling.'

      b.  *Ti      kn'igä  kuštə̂lgə̂-n    lə̂d-**alt**-eš.*
          this    book    easy-ADV       read-MED-NPST.3SG
          'This book reads easily.'

Using a wide range of examples similar to those in (45), Belova and Dyachkov (2019) demonstrate that the central meaning of *-alt-* is decausative. Reflexive and reciprocal verbs, in turn, are not numerous and can be derived only from a limited number of (Hill Mari) stems. For instance, although (44) are grammatical, *-alt-* variants in (46) are totally unacceptable even though the so called verbs of grooming are generally considered to be prototypically reflexivizable (Kemmer 1993).

(46)  a.   *Vas'a   tŏgŏr-ŏškŏ    anž-a /        \*anž-**alt**-eš*

          Vasya   mirror-ILL    look-NPST.3SG  look-MED-NPST.3SG

          'Vasya looks at himself in the mirror.'

     b.   *Vas'a   či-ä /                  \*či-**ält**-eš*

          Vasya  dress-NPST.3SG              dress-MED-NPST.3SG

          'Vasya dresses himself.'

     c.   *Vas'a   pandaš-ŏm   nŏž-eš /        \*nŏž-**ält**-eš*

          Vasya  beard-ACC    shave-NPST.3SG    shave-MED-NPST.3SG

          'Vasya shaves his beard.'

Other verbs that we would expect to have reflexive counterparts but that, in fact, prohibit such derivation include *ŏdŏraš* 'scratch' (*ŏdŏr-**alt**-aš* 'scratch oneself'), *pŏčkedäš* 'cut' (*pŏčked-**ält**-äš* 'cut oneself'), i.a.

Productivity is assumed to be the central property of syntactic reflexivization, attested, for instance, in Romance languages including Spanish and French (Labelle 2008), and that the number of reflexive predicates in Hill Mari is so limited strongly suggests that they are not derived in syntax but come 'premade' from the lexicon (see Reinhart and Siloni (2005) discussing the differences between syntactic vs. lexical reflexivization). With this consideration in mind, I maintain that, unlike in many other Uralic languages, the only productive reflexive strategy available in Hill Mari is to use a simple anaphoric pronoun.[29]

It might be suggested that the lexicalization of reflexivized predicates with *–ŏlt/alt* in Hill Mari happens under the influence of Russian. As shown in Belova and Dyachkov (2019), Hill Mari closely follows the Russian pattern. For instance, in case of lexical borrowing, in Hill Mari predicates the suffix *–alt* appears whenever there is the suffix *-sja* in a Russian translation equivalent: *zan'imaj**alt**aš / zanimat'**sja*** 'to occupy oneself with something', *ubiraj**alt**aš /*

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[29] A reviewer pointed out that, comparing to its counterparts in Meadow Mari, the suffixes *-ŏlt* and *-alt* in Hill Mari in general has a rather limited distribution. For instance, these markers can appear in Meadow Mari in truly impersonal sentences with an accusative object but without a nominative nominal subject (i); similar constructions are prohibited in Hill Mari (ii). I express my gratitude to the reviewer for the Meadow Mari example.

(i)   Sar      godəm  šüjšö    pareŋgə-m=at   kočk-alt-ən.
      war      during rotten   potato-ACC=and eat-REFL-PST2
      'During the war, people (=we) are even rotten potatoes.'

(ii)  Kŏver /          \*kŏver-ŏm      stroj-alt-eš.
      bridge           bridge-ACC     build-MED-NPST.3SG
      'The bridge is being constructed.'

*ubirat'sja* 'to clean', etc. Reflexive –*sja* verbs in Russian are argued to be derived in the lexicon and not in syntax (Pesetsky 1995; Say 2005). Unlike, for instance, -*sja* (medio-)passivization, -*sja* reflexivization is non-productive and many of such predicates have acquired non-compositional meanings (cf. *strič'sja* cut.hair-sja 'to have a haircut', not 'to cut one's own hair'; *ubirat'sja* 'to clean', not 'to clean oneself'; *sadit'sja* 'to sit down', without a counterpart \**sadit'*, etc.).

## 6    Conclusion

In this paper I examined in detail reflexive strategies in Hill Mari, comparing it to other Uralic languages. The first part of the paper focused on dedicated reflexive pronouns. Firstly, I discussed the morphosyntactic properties of reflexive derived from the stem *škə̈*-: adopting Déchaine and Wiltschko's (2017) typology of reflexives, I demonstrated that Hill Mari anaphors pattern with referential nominal phrases and should be considered full DPs. Secondly, I considered binding properties of *škə̈*- reflexives and classified them as non-subject oriented non-obviative long-distance anaphors in terms of the typology of pronouns developed by Kiparsky (2002). Comparing Hill Mari reflexives to those in other Uralic languages I showed that Hill Mari anaphors closely follow the general pattern; however, some microvariation is attested and deserve consideration.

In the second part of the paper I focused on other reflexive strategies employed in Uralic languages, such as complex reflexive pronouns and reflexive detransitivization of a predicate. Firstly, I provided evidence that what appears to be a complex reflexive should, in Hill Mari, be analyzed as a combination of a reflexive pronoun and a lexical intensifier, often syntactically unrelated to each other. Secondly, following Belova and Dyachkov (2019), I argued that, in contrast with those in other Uralic languages, Hill Mari intransitive verbs with reflexive interpretations are inherent and do not result from a productive syntactic derivation.

**Glossing abbreviations**: ACC = accusative, ADV = adverb, ATT = attenuative, CAUS = causative, CVB = converb, DAT = dative, DET = determiner, DETR = detransitive, GEN = genitive, EL = elative, EMPH = emphatic, ILL / ILL2 = illative, IN = inessive, INF = infinitive, LAT / LAT2 = lative, MED = middle, NEG = negation, NMLZ = nominalization, NPST = non-past, PART = partitive, PL = plural, POSS = possessive, PREP = preposition, PST = past, PST1 = past (aorist), PST2 = past (preterite/perfective), REFL = reflexive, SG = singular, TR = transitive.


## Corpora

The corpus of the Kuznetsovo variety of Hill Mari:

http://hillmari-exp.tilda.ws/en/corpus (accessed on 03.07.2020)

The corpus of literary Mari (demo version):

http://gtweb.uit.no/u_korp/?mode=mhr (accessed on 03.07.2020)

The Meadow Mari Social Media Corpus:

http://meadow-mari.web-corpora.net/index_en.html (accessed on 03.07.2020)

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