

8. Existential possession in Meadow Mari

Alexandra Simonenko

1. Introduction¹

This chapter is concerned with the syntax and semantics of possessive sentences in Meadow Mari.² Mari is a Uralic language spoken by several hundred thousand speakers in the Volga and Ural Regions of the Russian Federation. Meadow Mari, spoken in the western part of Mari El, the titular republic of the Mari, is one of four main dialects (besides Hill Mari, Northwestern Mari, and Eastern Mari), and is the basis of the dominant literary norm for Mari, the Meadow-Eastern literary language. Compared to other minority Finno-Ugric languages, Meadow Mari is relatively well studied, including a number of traditional grammatical descriptions (Alhoniemi 1993; Tuzharov 1987) and a series of more focused works dealing with particular aspects of the grammar, such as the morpho-syntax of case (Luutonen 1997; McFadden 2002; Caha 2013), reflexives (Volkova 2014), possessive suffixes (Fraurud 2001; Kuznetzova 2012; Simonenko 2014), and the structure of the noun phrase (Simonenko & Leontjev 2012).³

To the best of my knowledge, an analysis of the existential possessive sentences of Meadow Mari (or any variety of Mari, for that matter) has not yet been proposed. This chapter aims at filling this gap and, at the same time, contributing to a better understanding of sentential possession, in general, by providing the basis for a comparative study. The data on which this study draws come from the dialect of Staryj Torjal (the district of Novy Torjal, Mari El).

Assuming for a moment an informal working definition of possessive construction as a type of sentence whose propositional content expresses a relation between two entities such that one entity exercises some sort of control over another, Meadow Mari features two possessive sentence types. The first one, illustrated in (1), which I will dub existential possessive construction, features a possessor noun phrase (NP) in genitive case, a possessee in nominative, and a predicate *ulo* agreeing in number with the possessee argument.^{4,5} The possessee may bear a possessive suffix agreeing with the possessor NP in person and number. The distribution of the suffix has to do with the partial/total nature of the possessive relation, as will be discussed below.

Existential possessive construction

- | | | |
|--------------------|----------------|------------|
| (1) myj-yn | aka-m | ulo. |
| I-GEN | sister-POSS1SG | be.PRES3SG |
| 'I have a sister.' | | |

This type of possessive construction can be preliminarily characterized as introducing the existence of an entity (denoted by *akam*, ‘my sister’) and asserting a possessive relation between the entity and the possessor (in this case, the Speaker). This chapter is concerned mostly with this type.

The second type, which I will refer to as a predicative possessive construction, is instantiated by sentences such as (2), where the possessee NP is in nominative case, the possessor is again expressed by an NP in genitive, and the copula is phonologically overt in past tense only.⁶

Predicative possessive construction

- (2) a. tide pört myj-yn
 that house I-GEN
 ‘That house is mine.’
- b. tide pört myj-yn yle.
 that house I-GEN be.PST3SG
 ‘That house was mine.’

Predicative possessive constructions serve to introduce a possession relation between an entity whose existence has already been established (*tide pört*, ‘that house’) and a possessor (the Speaker in (2b)). In other words, while an existential possessive construction in (1) introduces both an individual and a relation between that individual and the possessor, a predicative construction in (2) does only the latter.

Configurations illustrated in (1) and (2a)–(2b) contrast with respect to the so-called Definiteness Effect (DE), the ban on certain types of quantifiers in existential constructions first identified in Milsark (1974). The DE, dealt with by Barwise & Cooper (1981), Higginbotham (1983), Keenan (1987), Zucchi (1995), Paducheva (2000), Leonetti (2008) and Fischer, Kupisch & Rinke (2016), among others, has been characterized as a ban on quantifiers associated with a presupposition of existence (in the relevant situation) of some entities from the quantification domain (i.e. the set of entities with the nominal property) (see De Jong 1987; Diesing 1992; Szabolcsi 1994). In English, the DE is illustrated for an existential construction and for a relational *have*-construction in (3) and (4).

- (3) *There is/are the/every/all/most/both/all mistakes (Zucchi 1995: 46)
- (4) *I have the/my/every/both sister(s). (based on Szabolcsi 1983, 1994)

In contrast, non-presuppositional quantifiers are allowed in existential '*there is*' and possessive *have*-constructions, as shown in (5) and (6).

(5) There is/are a/some/three/zero/many/a lot of/no mistakes. (Zucchi 1995: 46)

(6) I have a/three/no sister(s).

Meadow Mari existential possessive constructions, but not predicative ones, pattern with English existential ‘*there is*’ and possessive *have*-constructions in that their nominative argument cannot contain quantifiers of the types listed in (3) and (4). This is illustrated in (7), where the nominative argument *tide aka* contains a demonstrative, a determiner commonly assumed to trigger the presupposition that there exists an entity with the property denoted by the noun.

(7) *myj-yn tide aka ulo.
 I-GEN that sister be.PRES3SG
 Intended: ‘I have that sister.’

Example (8) makes the same point for a non-relational noun.

(8) *myj-yn tide pört ulo.
 I-GEN that house be.PRES3SG
 Intended: ‘I have that house.’

In what follows, I will present a semantico-syntactic analysis of the existential possessive constructions in Meadow Mari, arguing that they pattern with Meadow Mari existential sentences in general. More specifically, I will propose that possession is expressed in such constructions in two loci and in two different flavours. First, I will propose that existential possessive sentences, as a subclass of existential constructions, make an existential assertion that is restricted to a situation where everything is controlled by the possessor. Second, I will argue that due to the semantics of possessive suffixes, such constructions also convey information about whether there is a salient relation, other than that of control, which holds between the possessor and the possessee and which applies exhaustively to the possessor’s situation. That is, I will argue that existential possessive constructions in Meadow Mari convey information about both an instantaneous control and a more permanent possession. My account derives the DE on the assumption that there is a grammatical ban on utterances whose felicity conditions, such as an existential presupposition, are in a permanent conflict with the informativity condition (cf. Zucchi 1995 for declaratives; Oshima 2007 and Schwarz & Simonenko 2018, for interrogatives).

In the next section of the chapter, I will present existential possessive constructions in greater detail, with special focus on the distribution of possessive suffixes. In section 3, I lay out an analysis whereby the two main ingredients of the semantics of an existential possessive construction are an existential predicate, which introduces existential quantification, and a possessive suffix, which introduces a salient relation. In section 4, I give an account of the Definiteness Effect in Meadow Mari. Section 5 is a conclusion.

2. Existential possessive constructions: Basic patterns

The core ingredients of the class of constructions in Meadow Mari that I label *existential possessive constructions* are a possessor NP in genitive, a possessee NP in nominative and an existential predicate agreeing with the latter in number. As most other Finno-Ugric languages, Meadow Mari has a paradigm of possessive suffixes, which appear on the possessee.⁷ Whether the suffix is obligatory depends on whether the relevant relation is partial or total with respect to the situation of the possessor, to be clarified in what follows.

2.1. Total vs. partial possession

With existential predicates in present tense and first- and second-person genitive possessor NPs, it may appear that certain nouns obligatorily receive a possessive suffix, as in (9)⁸, whereas with others it is either optional, as in (10), or even unpreferred, as in (11).

- (9) myj-yn pij*(-em) ulo.
 I-GEN dog-POSS1SG be.PRES3SG
 ‘I have a dog.’

- (10) kyzyt myj-yn peš šuko paša(-m) ulo.
 now I-GEN very much work-POSS1SG be.PRES3SG
 ‘I have a lot of work now.’

- (11) myj-yn pört(#-em) ulo.
 I-GEN house-POSS1SG be.PRES3SG
 ‘I have a house.’

In what follows I will argue that the suffix is obligatory in those cases where the relevant relation encompasses all the subparts of the current situation of the possessor and where the lack of overt marking would give rise to the inference that the contrary is true (i.e. that the relation holds only partially or does not hold at all). Example (9), without the suffix, illustrates such a scenario, whereas the one in (10) illustrates the possibility of a licit omission of the suffix. (11) is the most complicated case. There, I suggest, the use of the suffix is unpreferred since the non-totality inference associated with the omission is very unlikely. Before moving to the formal aspects of my analysis, I will add to the empirical database the patterns found in Giellatekno corpus of Meadow Mari.⁹

There are thirty-seven clauses of the *myjyn (modifier) (modifier) possessee ulo* type. In ten cases the possessive suffix is absent.¹⁰ Examples (12) and (13) form almost a minimal pair with respect to the use of the suffix.

- (12) nine krepost'-vlak-ym yštyme šotyšto
 these fortress-PL-ACC making about
 myj-yn ške šonymaš-em ulo
 I-GEN own idea-POSS1SG be.PRES3SG
 'I have my own idea about making these fortresses.'

- (13) myj-yn ik šonymaš ulo
 I-GEN one idea be.PRES3SG
 'I have one idea.'

For the 1PL genitive phrase, there are five clauses found in the corpus, two of which do not have a possessive suffix. Examples (14) and (15) illustrate configurations with and without a possessive suffix, respectively.

- (14) tide surty-što memnan kažnyn-an
 this farm-INESS we.GEN each-GEN
 iktör paj-na ulo
 equal share-POSS1PL be.PRES3SG
 'We all have equal shares in this farm.'

- (15) tide jodyš-lan-at memnan vašmut ulo.
 this question-DAT-FOC we.GEN answer be.PRES3SG
 'We have an answer to this question.'

There are twenty-one existential possessive clauses with a present tense predicate and a second-person genitive phrase (*tyjyn (modifier) (modifier) possessee ulo*), all of which have a possessive suffix. There are nine clauses with a second-person plural genitive phrase, again, all with a possessive suffix. All twenty-eight constructions with a third-person singular genitive phrase have a possessee that bears a possessive suffix. Finally, there are twelve present tense clauses with a third-person plural genitive phrase, again, all with a possessive suffix on the possessee. The numbers are summarised in Table 8.1, which shows that possessive suffix omission in clauses with a present tense existential predicate is found only with the first person genitive NPs. Elicitation shows that omission is also possible with second- and third-person genitive NPs, which illustrates

Table 8.1 Possessive suffix use in existential possessive constructions in Giellatekno corpus.

| Genitive phrase | Possessee with a suffix/total |
|-----------------|-------------------------------|
| 1SG | 27/37 |
| 1PL | 3/5 |
| 2SG | 21/21 |
| 2PL | 9/9 |
| 3SG | 28/28 |
| 3PL | 12/12 |

the limited reliability of a (relatively) small corpus sample. The sample provides us, however, with some nice, naturally occurring examples. Returning to the elicitation data, consider the contrast between (16) (=9) and (17), where (17) is only felicitous on a ‘warning’ interpretation.

- (16) myj-yn pij*(-em) ulo.
 I-GEN dog-POSS1SG be.PRES3SG
 ‘I have a dog.’

- (17) myj-yn pij ulo!
 I-GEN dog be.PRES3SG
 ‘(Beware) I have a dog!’¹¹

The sentence in (18) constitutes a parallel example for the third-person genitival possessor.

- (18) Eskeryza, tudyn küzö ulo!
 beware, he.GEN knife be.PRES3SG
 ‘Beware, he has a knife!’

I take it that what distinguishes the ‘warning’ scenario is the instantaneous or partial nature of the association between the possessor and the possessee. Consider a similar pair in (19)–(20).

- (19) myj-yn **joča-m** ulo.
 I-GEN child-POSS1SG be.PRES3SG
 ‘I have a child.’ [‘I have my own child.’]

- (20) myj-yn **joča** ulo.
 I-GEN child be.PRES3SG
 ‘I have a child.’ [‘A friend asked me to babysit.’]

The contrast in the partial/total nature of the possessive relation turns out to be limited to the context of present tense existential predicates.

2.2. The tense factor: Present vs. non-present

Non-present tense in existential possessive sentences makes the possessive suffix omissible with all noun types. Consider examples (21) and (22), which contrast with all of the possessive existential sentences introduced above in that the existential predicate is in the past tense.

- (21) myj-yn aka(-m) **yle.**
 I-GEN sister-POSS1SG be.PAST3SG
 ‘I had a sister.’

- (22) *tyj-yn* *aka(-t)* **yle.**
 you-GEN sister-POSS2SG be.PAST3SG
 ‘You had a sister.’

The possessor in (21) and (22) cannot be interpreted as predicate giving a translation such as ‘this sister was mine/yours’. Such an analysis would predict that (21) and (22) do not show the DE, contrary to the facts, as the ungrammaticality of (23) shows.

- (23) **myj-yn* *tide* *aka-m* **yle.**
 I-GEN that sister-POSS1SG be.PAST3SG
 Intended: ‘I had that sister.’

A corresponding, grammatical predicative possessive construction is presented in (24).

- (24) *tide myj-yn* *aka-m* **yle.**
 that I-GEN sister-POSS1SG be.PAST3SG
 ‘That was my sister.’

The meaning of the possessive suffix should thus be sensitive to the temporal dimension of the possessive relation, limiting it to the ongoing situations.

Just like the first- and second-person possessive suffix, the third-person possessive suffix on the possessee is optional in the past tense. Compare (25a) and (25b) as well as (26a) and (26b).

- (25) a. *myj-yn* *ava-m-yn* *nyl joča*(-žē)* **ulo.**
 I-GEN mother-POSS1SG-GEN four child-POSS3SG be.PRES3SG
 ‘My mother has four children.’

- b. *myj-yn* *ava-m-yn* *nyl joča(-žē)* **yle.**
 I-GEN mother-POSS1SG-GEN four child-POSS3SG be.PAST3SG
 ‘My mother had four children.’

- (26) a. *aka-m-yn* *pyrys*(-šē)* **ulo.**
 sister-POSS1SG-GEN cat-POSS3SG be.PRES3SG
 ‘My sister has a cat.’

- b. *aka-m-yn* *pyrys (-šē)* **yle.**
 sister-POSS1SG-GEN cat-POSS3SG be.PAST3SG
 ‘My sister had a cat.’

To sum up the distributional facts, the possessive suffix is obligatory with first- and second-person possessors in the present tense only on the total possession reading.

2.3. The range of expressible relations

The situations covered by the truth conditions of existential possessive constructions with animate genitival possessors seem to be limited to those where the possessor exercises a degree of control over the possessee. I take it that the assertion of a control relation entails a possibility of losing control, which corresponds to selling/giving away/losing (for an object) or losing (for a person).¹² Consider the following English pairs, where (27a) and (28a) entail (27b) and (28b), respectively. In contrast, there is clearly no entailment relation between (29a) and (29b) and (30a) and (30b).

- (27) a. I have a house.
b. I may sell it/give it away.
- (28) a. I have a dog.
b. I may lose it.
- (29) a. I see a house.
b. #I may sell it/give it away.
- (30) a. I stand by a tax officer.
b. #I am afraid to lose him.

Consider now the example in (31), which is false unless the Speaker owns a village. In contrast, the possessive morpheme in (32) is used in the context where the relevant relation can be described as ‘being an inhabitant of’.

- (31) #myj-yn ola ulo.
I-GEN village be.PRES3SG
Intended: ‘#There is a village where I was born’ Attested: ‘I have a village.’
- (32) ola-m peš kugu.
village-POSS1SG very big
‘My village (i.e. where I live) is very big.’

It thus appears that a possessive suffix by itself covers a wider range of relations than just possession proper, where possession is understood as involving a relation of control. Typologically, this is not an exceptional case. Søggaard (2005) shows on the basis of a sample of languages from different families that adnominal possessive constructions encode a wider range of relations than clausal possessive configurations.¹³

With inanimate possessors the only expressible relation is that of membership. Consider the unacceptable example in (33) where the intended reading is that the village has a school.

- (33) #jal-yn škol-že ulo.
village-GEN school-POSS3SG be.PRES3SG
Intended: ‘The village has a school.’

A grammatical way of expressing this meaning involves using a noun phrase in inessive case, as in (34).

- (34) *jal-yšte* *škol* *ulo.*
 village-INESS school be.PRES3SG
 ‘The village has a school. / There is a school in the village.’

A minimal difference in meaning contribution of the genitive and inessive marking is illustrated by the following sentence pair, where the second utterance can only be interpreted in the sense that a table is part of the kitchen as a furniture set, rather than a kitchen as a spatial location.

- (35) *kuhni-što* / **kuhn’-yn* *üštembal* *ulo.*
 kitchen-INESS / kitchen-GEN table be.PRES3SG
 ‘There is a table in the kitchen.’

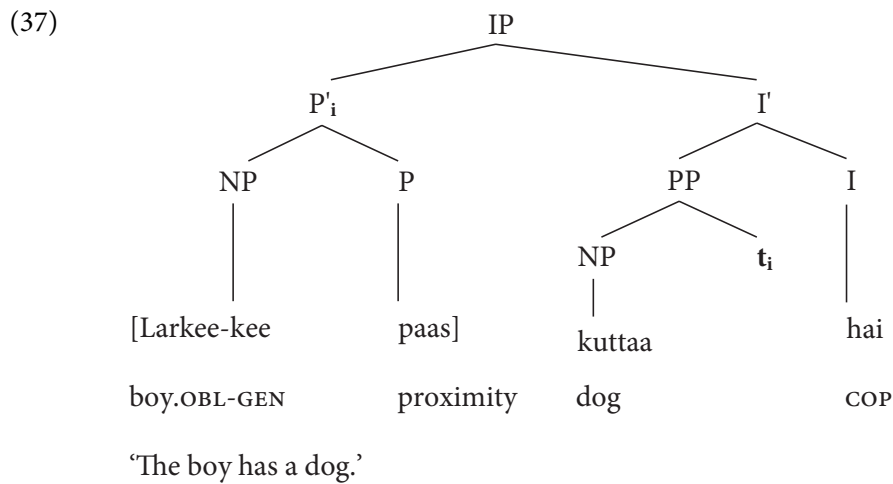
- (36) *kuhn’-yn* *üštembal-že* *ulo.*
 kitchen-GEN table-POSS3SG be.PRES3SG
 ‘The kitchen (set) has a table (in it).’

The goal of the next section is to sketch an analysis capturing the above-mentioned patterns with a minimal number of special assumptions.

3. Existential possessive constructions: An analysis

3.1. Possessor-location link

In order to capture the fact that existential and proper locative constructions in Meadow Mari feature exactly the same paradigm of existential predicates (*ulo/yle/uke*, ‘is/was/is not’, etc.) and show the DE, I will assume that both constructions assert the existence of an individual with a nominal property relative to a particular domain. A parallel between existential possessive and existential locative constructions was drawn already in Freeze (1992), who argued, based on a typological sample, that the two involve essentially the same syntactic structure. The structure Freeze proposes for a head-final language (Hindi) is given in (37), where the predicate, heading the I(nflectional) projection, takes as its complement a prepositional predication. The latter introduces the possessor or locative phrase as the complement of P and the possessee as the specifier of P.’ Freeze (1992: 579) also assumes that P’ (denoting the possessor or location) fronts to [Spec, IP].



Freeze (1992) argues that the possessor NP in existential possessive constructions is in fact a location that, by virtue of its [+animate] feature, slightly differs morphologically from inanimate locations. Namely, it has zero or different types of prepositions and/or case marking. Even earlier, Szabolcsi (1981: 276) proposed to see Hungarian dative possessors as locative expressions.

In what follows, I will build on these insights by making the possessor-location link more explicit. It seems clear that a possessor cannot be literally taken as equating the physical location of a particular individual since this would not match the truth conditions of a sentence such as *myjyn pyrysem ulo* (‘I have a cat’), which do not require that there be a cat literally on or even near the Speaker’s body in order to be judged true. I will argue instead that in the case of existential possessive constructions, the location in question is a situation in which all individuals are related by a control relation to an (atomic or group) individual, traditionally called the possessor, and that such situations are contributed by the genitive phrase. Interpreting possession in terms of a control relation has a long tradition (see Baron & Herslund 2001; Stassen 2009; Levinson 2011; Arylova 2013 and references to earlier works therein).

3.1. Main predicate: Existential closure relative to a situation

The role of an existential predicate on this account is to introduce existential quantification relativized to a particular domain: the domain of the possessor or the domain given by a locative NP in existential possessive and existential locative constructions, respectively. I thus extend to existential possessive constructions in Meadow Mari a principle of relative existence developed in a series of works by Partee & Borschev and given in (38) (Partee & Borschev 2007: 155).

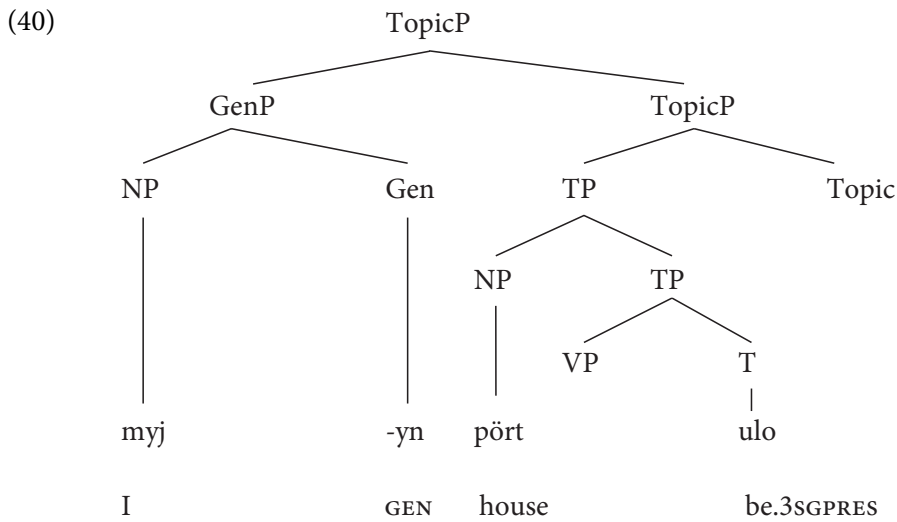
(38) *Principle of Relative Existence*

Existence (in the sense relative to affirmative existential sentences and negated existential sentences) is always relative to a LOC(ation).

I argue that a specific feature of existential possessive constructions is that location is defined via an individual, namely, as a set of situations where the individual in question controls other individuals and objects (in the sense defined below).

A sketch of the structure for the example in (39) is given in (40), where the genitive phrase corresponding to the possessor situation is introduced in the Specifier of the Topic projection, and the possessee phrase in nominative occupies [Spec, TP] (the vP level is omitted for the sake of clarity).¹⁴

- (39) myj-yn pört ulo.
 I-GEN house be.PRES3SG
 ‘I have a house.’



I assume that in general the Topic projection is responsible for introducing an Austinian situation or situations that restrict the proposition denoted by the complement of the Topic projection (cf. Schwarz 2009: 87). In existential possessive structures the Topic projection hosts a possessor phrase (i.e. genitive NP), which delimits the set of relevant situations.

The existential predicate in present tense denotes a function that takes a property (the denotation of the nominal predicate) and a situation variable *s* as its arguments and returns truth in case there exists an individual with the relevant property in the situation *s* at the time that equals the time of the utterance, as in (41). This analysis is similar to the treatment of existentials in McNally (1992), who proposes that an existential predicate introduces an assertion that there exists an individual instantiating the property supplied by the nominal predicate at a given spatio-temporal index.¹⁵

- (41) $[[ulo]]^{g,c} = \lambda P_{\langle e, \langle \sigma, t \rangle \rangle}. \lambda s_{\sigma}. \exists x_e \exists t_{\tau} [P(x)(s) \text{ at } t = \text{utterance time}]$

The existential predicate combines with the denotation of the nominal predicate by Functional Application (Heim & Kratzer 1998), binding the situation argument of the latter.

$$(42) [[p\ddot{o}rt\ ulo]]^{g.c} = \lambda s_e. \exists x_e \exists t_t [x \text{ is a house in situation } s \text{ at } t = \text{utterance time}]$$

The situation argument of the existential predicate can be restricted by the denotation either of a locative phrase or, I argue, of a genitive one. First, I assume that the genitive morpheme is a relational predicate, in line with a vast tradition (e.g. Partee & Borschev 1998 and references therein), and that it encodes a control relation, (43).

$$(43) [[gen]]^{g.c} = \lambda x_e. \lambda y_e. \lambda s_\alpha. y \text{ is controlled by } x \text{ in } s$$

If the second argument is closed under universal quantification, as I claim is the case when a genitive is merged in the Topic projection, it generates—with respect to an individual—a set of situations in which everything is controlled by that individual. The corresponding lexical entry is given in (44).

$$(44) [[gen]]^{g.c} = \lambda x_e. \lambda s_\alpha. \forall y_e \text{ in } s [y \text{ is controlled by } x]$$

This solution is similar in spirit to the analysis of implicit (scope) restrictors in existential constructions put forth in Francez (2010), where the restrictor set correspond to a set of individuals standing in a particular context-specified relation to a salient antecedent. On the present analysis, the relevant relation is that of control. In contrast to Francez' analysis, I propose that in existential possessive constructions a possessor generates a set of situations, which makes it resemble a coda modifying the spatio temporal parameters of the existential predication on the analysis of McNally (1992).

The genitive phrase then denotes a set of situations in which every individual is controlled, to an extent sufficient to license a 'losing' entailment (see section 2.4), by the individual denoted by the complement of the genitive morpheme (a pronoun in the case at hand). This set of situations serves to restrict the existential assertion, as will be shown further.

The semantics in (44) predicts that genitive NPs cannot be used to simply express existence of an entity/individual in some location associated with the Speaker, as it crucially involves a control condition. This prediction is borne out: in order to convey the meaning 'Your sister is with me/at my place', a postpositional comitative phrase has to be used rather than a genitive one, as (45) shows. Being in a physical proximity of an individual does not necessarily imply control on the part of that individual, and so the use of a genitive phrase, introducing a control relation, is infelicitous in this case.

| | | | | |
|------|--|------------------|----------------|------------|
| (45) | myj | dene-m / *myj-yn | aka-t | ulo. |
| | I | with-1SG / I-GEN | sister-POSS2SG | be.PRES3SG |
| | 'Your sister is with me/in my house.' [ZV 14 March 2018] | | | |

The composition of the former is given in (46), where the denotation of the genitive morpheme in (44) combines, by FA, with the denotation of the pronoun *myj* (the possessor in context c).

$$(46) [[\text{gen}]]^{g,c}([\text{myj}]]^{g,c} = \lambda s_\sigma. \forall y \text{ in } s[y_e \text{ is controlled by the Speaker in } c]^{16}$$

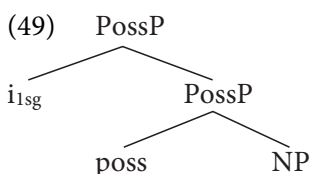
The resulting set of situations intersects with the set of situations denoted by the predicate in (42). The utterance *myjyn pört ulo* ('I have a house') then has the following denotation:

$$(47) [[\text{myjyn pört ulo}]]^{g,c} = \lambda s_\sigma. \exists x_e \exists t_\tau [x \text{ is a house in situation } s \ \& \ \forall y \text{ in } s[y \text{ is controlled by the Speaker in } c] \text{ at } t = \text{utterance time}]$$

3.2. Possessive suffixes: Relationality, maximality and temporal independence

Let us now turn to the contribution of the possessive suffixes. A particularly interesting issue is whether they add anything to the semantics in (47). Given that possessive suffixes appear to cover a wider range of relations than genitive possessors (see section 2.4), I assume that one extra meaning component they add is a contextually defined relation variable. A preliminary version of a lexical entry for the 1SG possessive morpheme is given in (50). Following Simonenko (2017), I assume a Logical Form in (48) (corresponding to a tree diagram in (49)), where *i* is the index of a silent individual pronoun with an interpretation range restricted by person and number features (1st, 2nd or 3rd).

$$(48) i_{1sg} \text{ POSS NP}$$



$$(50) [[\text{POSS}]]^{g,c} = \lambda P_{\langle e, \langle \sigma, t \rangle \rangle}. \lambda y_e. \lambda x_e. \lambda s_\sigma. P(x)(s) \ \& \ R_c(x)(y)(s)$$

PRELIMINARY I where *R* is contextually defined.

The combination of a possessive morpheme, a nominal predicate and a silent pronoun is interpreted as in (51).

$$(51) [[i_{1sg} \text{ POSS NP}]]^{g,c} = \lambda x_e. \lambda s_\sigma. [[\text{NP}]](x)(s) \ \& \ R_c(x)(g(i_{1sg}))(s)$$

The possessive morpheme thus restricts the denotation of the noun phrase to the individual that stands in a particular relation to the referent of the pronoun.

The preliminary semantics of the possessive suffix in (50) does not capture the patterns in section 2.1, which I described as reflecting a total/partial nature of a possessive relation. In (52) I model this by introducing exhaustive quantification over the subparts of the possessor's situation as part of the possessive suffix semantics.

$$(52) [[\text{POSS}]]^{g,c} = \lambda P_{\langle e, \langle \sigma, t \rangle \rangle}. \lambda x_e. \lambda y_e. \lambda s_\sigma. \forall s' \leq f_c(x)[R_c(y)(x)(s')] \ \& \ P(y)(s)$$

PRELIMINARY II

where f_c is a function which maps an individual to a maximal situation ('possessor's situation') encompassing all minimal situations involving that individual.

The semantics in (52) is meant to capture contrasts such as the one between (16) and (17), repeated here as (53) and (54), respectively.

(53) myj-yn pij*(-em) ulo.
 I-GEN dog-POSS1SG be.PRES3SG
 ‘I have a dog.’ [ZV: 15 March 2018]

(54) myj-yn pij ulo!
 I-GEN dog be.PRES3SG
 ‘(Beware) I have a dog!’ [ZV: 15 March 2018]

The possessive suffix, on its updated semantics in (52), adds to the truth conditions a clause that the relevant relation between the possessor and an individual with the nominal property holds in all the subparts of the possessor’s maximal situation, as opposed to just *a* situation in which the possessor has control. The contrast between the semantic contribution of a genitive possessor and a possessive morpheme, in addition to the nature of the relation (control vs. free variable), thus involves existential vs. universal quantification over relevant situations. In (55)–(56) I give the interpretation of (53), assuming a possessive suffix semantics in (52) and an existential predicate semantics in (41).

(55) $[[i_{\text{sg}} \text{ POSS } pij]]^{\text{g.c}} = \lambda x_e . \lambda s_o . \forall s' \leq f(\text{Speaker})[R_c(x)(\text{Speaker})(s')] \ \& \ [[\text{dog}]](x)(s)$

(56) $[[ulo]]^{\text{g.c}}[[i_{\text{sg}} \text{ POSS } pij]]^{\text{g.c}} = \lambda s_o . \exists x_e \exists t_r [\forall s' \leq f(\text{Speaker})[R_c(x)(\text{Speaker})(s')] \ \& \ [[\text{dog}]](x)(s) \text{ at } t = \text{utterance time}]$

(57) $[[myjyn pijem ulo]]^{\text{g.c}} = \lambda s_o . \exists x_e \exists t_r [\forall s' \leq f(\text{Speaker})[R_c(x)(\text{Speaker})(s')] \ \& \ [[\text{dog}]](x)(s) \ \& \ \forall y \text{ in } s[y \text{ is controlled by the Speaker in } c] \text{ at } t = \text{utterance time}]$

In contrast, the denotation of (54) is as in (47) (modulo the nominal predicate).

I have so far proposed that an existential possessive construction without a possessive suffix conveys the existence of an entity with the nominal property in a situation where everything is controlled by the possessor at the time of the utterance. A possessive suffix makes a stronger contribution, viz. a statement that the entity in question is related to the possessor by some salient relation that holds in *all* the subparts of the Speaker’s situation.

Since a possessive morpheme restricts the nominal denotation, in an upward entailing environment a structure with a possessive morpheme makes an utterance more informative than the one without. I assume that the logical forms with and without a suffix form structural alternatives (Fox & Katzir 2011) and that, by a Gricean expectation that the Speaker makes a maximally informative contribution if it is true, the non-use of a possessive suffix gives rise to an implicature that there is no relation that holds in all the subparts of the possessor’s maximal situation. If such an inference is counterfactual, that is, if the context does support the stronger truth conditions

involving the possessive suffix, an utterance without a suffix is perceived as deviant. The only context in which the omission is predicted to be permissible even if the no-total-relation inference is counterfactual are those where the inference itself is highly implausible, as in (11) where it is very unlikely that a house is being possessed just instantaneously, as a knife or an apple.

In contrast, in a downward entailing environment (e.g. under negation), a structure with a possessive morpheme is not necessarily more informative (there not being any dogs related to the Speaker by a salient relation in all subparts of the Speaker's maximal situation does not entail there not being any dogs controlled by the Speaker at the utterance time). In such environments, possessive morphemes are predicted to be omissible. Example (55) shows that this prediction is borne out:

- (58) myj-yn šüžar(-em) uke.
 I-GEN sister-POSS1SG be.NEG.PRES3SG
 'I don't have a sister.'

The remaining pattern unaccounted for by the entry in (52) is the omissibility of the possessive suffix in past tense. A declarative statement about events in a past situation is an upward entailing environment, just as its present tense counterpart, and thus is predicted to require the use of a possessive morpheme in order to avoid the inference about the absence of an all-encompassing salient relation. I therefore relativize the possessive relation to a temporal parameter, namely, the possessor's current situation. This amendment is reflected in (59), where the function f_c from individuals to their maximal situations now returns only those situations that are ongoing at the utterance time.

- (59) $[[\text{POSS}]]^{g,c} = \lambda P_{\langle e, \langle \sigma, t \rangle \rangle} \cdot \lambda x_e \cdot \lambda y_e \cdot \lambda s_o \cdot \forall s' \leq f_c(x)[R_c(y)(x)(s')] \ \& \ P(y)(s)$
 where f_c is a function that maps an individual to a maximal situation ('possessor's situation') encompassing all situations involving that individual and holding at t = utterance time.

Notice that this function does not have any kind of definedness conditions. This reflects the empirical fact that in Meadow Mari the felicity conditions on the use of possessive suffixes do not require that there exist an individual with the property denoted by an extended nominal projection. That is, they do not trigger an existential presupposition. Unlike English possessive pronouns, which are commonly assumed to presuppose the existence of an individual satisfying the nominal description and standing in a possessive relation to the possessor, Mari possessive suffixes occur both in interrogative and negative existential statements, as (60) and (61) show. Compare these to their ungrammatical English counterparts in (62) and (63).

- (60) Tyj-yn aka-t ulo?
 you-GEN sister-POSS2SG be.PRES3SG
 'Do you have a sister?'

- (61) myj-yn aka-m uke.
 I-GEN sister-1SG NEG
 'I don't have a sister'

(62) *Do you have your sister?

(63) *I do not have my sister.

Consider the effect of the amended entry in (59) on the interpretation of a past tense existential possessive claim. The sentence *myjyn pijem yle* ('I had a dog') has the denotation in (65), assuming the semantics of the past tense existential predicate in (64).

(64) $[[yle]]^{s,c} = \lambda P_{\langle e, \langle \sigma, t \rangle \rangle} . \lambda s_{\sigma} . \exists x_e \exists t_{\tau} [P(x)(s) \text{ at } t < \text{utterance time}]$

(65) $[[myjyn pijem yle]]^{s,c} = \lambda s_{\sigma} . \exists t_{\tau} \exists x_e [\forall s' \leq f_c(\text{Speaker})[R_c(x)(\text{Speaker})(s')) \ \& \ [[dog]](x)(s) \ \& \ \forall y \text{ in } s[y \text{ is controlled by the Speaker in } c] \text{ at } t < \text{utterance time}]$
 where f_c is a function that maps an individual to a maximal situation ('possessor's situation') encompassing all situation involving that individual and holding at $t =$ utterance time

This past tense existential possessive sentence denotes a property of situations, which holds of a situation if there exists an individual that is a dog in that situation and that situation one where everything is controlled by the Speaker *at the time preceding the utterance time* and that individual is related by a salient relation to the Speaker in all the subparts of the Speaker's maximal *ongoing situation*.

If there is *currently* no salient relation between the dog-individual and the Speaker, this sentence would be false with the suffix and we then expect the suffix omission. We thus have derived the non-present tense obviation effect from the situational independence of the relation introduced by possessive suffixes. Independently of the times or situations introduced higher up, they signal a relationship in the Speaker's or addressee's current situation.

4. The Definiteness Effect

The DE seems to be a distinctive feature of a particular class of constructions at the core of which we find an existential assertion. As mentioned in section 1, existential possessive constructions in Meadow Mari show the DE in that Milsark's strong quantifiers are excluded from the position of the argument of the existential copula. This is illustrated again in (66).

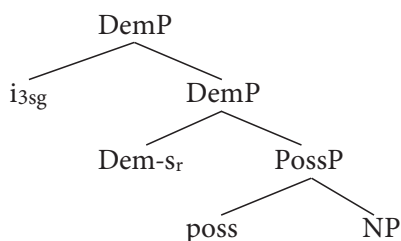
- (66) *myj-yn tide pij-em ulo.
 I-GEN that dog-POSS1SG be.PRES3SG
 Intended: '*I have that dog.' (On an existential reading.)

Building on Zucchi's (1995) account of the DE in English existential constructions, I propose that it arises in Mari as a result of an irreparable conflict between two felicity conditions, namely, the informativity condition and the existential presupposition introduced by an NP in the argument position. The informativity condition on existential sentences was formulated in Zucchi (1995: 69) as a requirement that the context neither entail that the denotation of the argument DP is empty nor that it is non-empty. This is a more general version of the felicity condition put forth in McNally (1992: 77), which requires that the individual whose existence is asserted by an existential construction be novel. These are essentially construction-specific versions of a yet more general informativity condition of Stalnaker (1978), invoked implicitly in Oshima (2007) and explicitly in Simonenko (2016) and Schwarz & Simonenko (2018) to account for the ungrammaticality of referential and factive islands, respectively. The condition can be stated as follows, where c is Stalnaker's (1978) context set:

- (67) INFORMATIVITY CONDITION (Schwarz & Simonenko 2018)
 Proposition p is felicitous with respect to a context c iff $c \not\subseteq p$

The informativity condition requires that the proposition concerned not be entailed by the context set. Below I give an example of how a clash between the informativity condition and an existential presupposition arises by going through the truth and felicity conditions of an offending configuration in (66).

I assume the structure in (68) for demonstrative phrases, where s_r is a Kratzerian resource situation relative to which a DP is interpreted. I also assume that the demonstrative head itself is interpreted as in (69), following Elbourne (2008) and Schwarz (2009).



$$(69)[[tide]]^{g,c} = \lambda s_\sigma . \lambda P_{\langle e, \langle \sigma, t \rangle \rangle} . \lambda y_e : \exists! x [P(x)(s) \ \& \ x = y] . \iota x [P(x)(s) \ \& \ x = y]$$

The denotation of the demonstrative phrase is then as in (67), assuming that PossP meaning is as in (66). Importantly, the demonstrative (as presumably all other Milsark's strong quantifiers) introduces an existential presupposition.

$$(70) [[i_{1sg} \text{ POSS } pij]]^{g,c} = \lambda x_e . \lambda s_\sigma . \forall s' \leq_f c(\text{Speaker}) [R_c(x)(\text{Speaker})(s')] \ \& \ [[dog]](x)(s)$$

$$(71) [[tide-s_r i_{1sg} \text{ POSS } pij]]^{g,c} = \lambda x_e : \exists! x [\forall s' \leq_f c(\text{Speaker}) [R_c(x)(\text{Speaker})(s')] \ \& \ [[dog]](x)(s_r) \ \& \ x = y] . \iota x [\forall s' \leq_f c(\text{Speaker}) [R_c(x)(\text{Speaker})(s')] \ \& \ [[dog]](x)(s_r) \ \& \ x = y]$$

Once the denotation in (70) combines with the denotation of the third-person silent pronoun (68), a demonstrative phrase, if defined (i.e. iff $\exists!x[\forall s' \leq f_c(\text{Speaker})[R_c(x)(\text{Speaker})(s')) \& [[\text{dog}]](x)(s_r) \& x = g(i_{3sg})]$), denotes the referent of that pronoun, $g(i_{3sg})$ (i.e. the unique individual x that satisfies the condition $x = g(i_{3sg})$).

Before we try to interpret an existential statement containing *tide pijem*, notice that there is a type mismatch between $[[i_{3sg} \text{ tide-} s_r i_{1sg} \text{ POSS } pij]]^{g,c}$ (individual type e) and the first argument slot of $[[ulo]]$ (property type $\langle e \langle s, t \rangle \rangle$), whose semantics is given in (44), repeated here as (72).

$$(72) [[ulo]]^{g,c} = \lambda P_{\langle e, \langle \sigma, t \rangle \rangle} \lambda s_\sigma. \exists x_e \exists t_\tau [P(x)(s) \text{ at } t = \text{utterance time}]$$

Let us assume for the sake of argument that this conflict is resolved via an intensional version of Partee's (1986) *ident* type-shifting and that $[[i_{3sg} \text{ tide-} s_r i_{1sg} \text{ POSS } pij]]^{g,c}$, following such type-shifting, denotes a function from individuals to propositions that are true just in case the individual is identical to $g(i_{3sg})$ in a given situation. Let us also assume that the function $ident_{intens}$ comes with a requirement that there exist an individual identical to the input of the function in the relevant situation, as in (73).

$$(73) ident_{intens}([i_{3sg} \text{ tide-} s_r i_{1sg} \text{ POSS } pij]^{g,c}) = \lambda x_e \lambda s_\sigma : \exists!x[x = g(i_{3sg}) \text{ in } s]. x = g(i_{3sg}) \text{ in } s.$$

$$(74) [[ulo]]^{g,c}(ident_{intens}([i_{3sg} \text{ tide-} s_r i_{1sg} \text{ POSS } pij]^{g,c})) = \lambda s_\sigma : \exists!x[x = g(i_{3sg}) \text{ in } s]. \exists x_e \exists t_\tau [x = g(i_{3sg}) \text{ in } s \text{ at } t = \text{utterance time}]$$

Intersecting it with the denotation of the genitive phrase in (44), repeated in (75), we get a proposition in (76).

$$(75) [[gen]]^{g,c}([myj]^{g,c}) = \lambda s_\sigma. \forall y \text{ in } s[y \text{ is controlled by the Speaker in } c]$$

$$(76) ([myjyn]^{g,c})([ulo]^{g,c}(ident_{intens}([i_{3sg} \text{ tide-} s_r i_{1sg} \text{ POSS } pij]^{g,c}))) = \lambda s_\sigma : \exists!x[x = g(i_{3sg}) \text{ in } s \& \forall y \text{ in } s[y \text{ is controlled by the Speaker in } c]] \cdot \exists x_e \exists t_\tau [x = g(i_{3sg}) \text{ in } s \& \forall y \text{ in } s[y \text{ is controlled by the Speaker in } c] \text{ at } t = \text{utterance time}]$$

The hypothetical (but empirically ungrammatical) existential possessive construction with a demonstrative carries a presupposition that there exists a unique individual identical to $g(i_{3sg})$ in a situation where everything is controlled by the Speaker, while the assertion states that there exists an individual, identical to $g(i_{3sg})$, in a situation where everything is controlled by the Speaker at a time identical to the utterance time. It follows that any context set c which entails the presupposition will entail the assertion as well. I propose that the source of the Definiteness Effect in Mari existential possessive constructions is the same as in the case of English existential constructions (Zucchi 1995), referential DP islands (Simonenko 2016) and factive islands (Oshima 2007; Schwarz & Simonenko 2018), namely, an irreconcilable conflict between the requirement for the utterance to be informative and the existential presupposition.¹⁷ Given the existence presupposition triggered by the demonstrative

determiner and the semantics of existential constructions, the informativity condition in (67) cannot be satisfied in any context in which the existence presupposition is satisfied, and vice versa.

The DE in existential possessive constructions is of course not limited to demonstratives. (77) and (78) replicate it for two so-called strong quantifiers, ‘both’ and ‘all’.

- (77) *myj-yn koktynat pij-em ulo
 I-GEN both dog-1SG be.PRES3SG
 Intended: ‘*I have both dogs.’

- (78) *myj-yn čyla pij-em ulo.
 I-GEN all dog-POSS1SG be.PRES3SG
 Intended: ‘I have all the dogs.’ (On an existential reading.)

What makes Meadow Mari existential possessive constructions typologically interesting, especially in comparison with their European counterparts, is that possessive suffixes, unlike possessive pronouns in European languages, do not trigger DE. I have argued that this is expected, given the independent evidence that they do not trigger an existential presupposition, a crucial ingredient of the DE on the account I have adopted here.

In the general case, in an existential possessive construction with a determiner triggering an existential presupposition, the following pattern obtains: both the presupposition and the assertion establish the existence of an individual with the nominal property relative to the same domain. This is because the existential predicate binds the situational argument of its complement both at the level of presupposition and at the level of assertion and ‘passes on’ to it the restrictions introduced by the genitive possessor. This is not the case in predicative possessive constructions, such as the one in (2a), repeated here as (79).

- (79) tide pört myj-yn
 that house I-GEN
 ‘That house is mine.’

In a predicative construction, a certain property is predicated of the denotation of the subject. In (80) it is the property of belonging to the Speaker. I assume that the predicative zero copula has the following semantics. That is, it is identical to its overt existential counterpart in (41) with the exception that there is no existential closure this time.

- (80) $\lambda P_{\langle e, \sigma t \rangle} \lambda x_e . \lambda s_\sigma . P(x)(s)$

Recall that a genitive morpheme, without a universal closure, denotes a relation of control, as in (43), repeated here as (81).

- (81) $[[\text{gen}]]^{g,c} = \lambda x_e . \lambda y_e . \lambda s_\sigma . y \text{ is controlled by } x \text{ in } s$

A combination of the predicative copula with the denotation of the genitive phrase, $\lambda x_e . \lambda s_\sigma . x$ is controlled by the Speaker in s , results in an identical predicate:

(82) $\lambda x_e . \lambda s_\sigma . x$ is controlled by the Speaker in s

With the denotation of the demonstrative phrase in (83) (based on the entry in (69)) as the final argument, this gives the proposition in (84).

(83) $[[i_{3sg} \text{ tide-} s_r \text{ pört}]]^{g,c} = \text{is defined iff } \exists!x[x \text{ is a house in } g(r) \text{ and } x = g(i_{3sg})]$ if defined, $[[i_{3sg} \text{ tide-} s_r \text{ pört}]]^{g,c} = \lambda x[x \text{ is a house in } g(r) \text{ \& } x = g(i_{3sg})]$

(84) $[[\text{tide-} s_r \text{ pört myj-yn}]]^{g,c} = \lambda s_\sigma : \exists!x[x \text{ is a house in } g(r) \text{ and } x = g(i_{3sg})] . \lambda x[x \text{ is a house in } g(r) \text{ \& } x = g(i_{3sg})]$ is controlled by the Speaker in s

Unlike an existential possessive construction which asserts the existence of an individual in a domain controlled by the possessor, a predicative possessive construction actually conveys a relational information about an individual whose existence has already been established. It is also easy to see that there is no entailment relation between the presupposed and asserted content in (84), and thus this sentence can satisfy the informativity condition in (67) even in those contexts that satisfy its presupposition. The DE is thus correctly predicted not to arise.

5. Conclusion

In this chapter I presented an analysis of existential possessive constructions in Meadow Mari, which includes an analysis of the role of genitive possessors and possessive suffixes as well as the emergence of the Definiteness Effect. I have proposed that genitive possessors yield a relation of control co-temporary with the time of the existential predicate, while possessive morphemes introduce a salient relation, possibly different from that of control and holding in all the ongoing situations involving the possessor. I argued that the genitive phrase assumes either the semantics of a relation or, if one of the arguments is universally closed, of a property to be a controller in a given situation. This flexibility allows it to provide a domain restriction in existential possessive constructions and a property in the predicative possessive constructions.

I also proposed a fully compositional account of the contrast in the Definiteness Effect between existential possessive constructions on the one hand and predicative possessive constructions on the other. I showed that in the latter case an existential presupposition trigger contributes to the sentence presupposition being equivalent or stronger than the assertion, leading to a permanent conflict between presupposition satisfaction and informativeness.

Notes

1 Abbreviations

| | | | |
|-------|---------------------|------|-----------------|
| ACC | accusative case | PL | plural number |
| DE | Definiteness Effect | PRES | present tense |
| GEN | genitive case | PST | past tense |
| INESS | inessive case | SG | singular number |
| INF | infinitive | | |
| NEG | negative marker | | |

- 2 I am very thankful to Zinaida Vetkeevna Klutcheva, Yulia Ivanovna Soboleva and Galina Gennadyevna Pushkina for sharing with me their knowledge of Mari. I am grateful to the editors of the present volume, an anonymous reviewer, Itamar Francez and Jeremy Bradley for extremely helpful comments and suggestions. Needless to say, I am responsible for all the remaining flaws. This work has been supported by Research Foundation Flanders and Ghent University as well as CNRS grant ‘Multimodal analysis of the noun phrase in Finno-Ugric languages: Referential continuity and encoding of the informational structure of the sentence’ (PIs Benjamin Fagard & Natalya Serdobolskaya).

- 3 Unlike many other minority Finno-Ugric languages, Meadow Mari enjoys rich, recently created linguistic resources, such as large on-line dictionaries (<https://www.univie.ac.at/maridict/site-2014/dict.php?int=0> and <http://marlamuter.com/en/>), morphological analysers (<http://giellatekno.uit.no/cgi/index.mhr.eng.html> and <https://www.univie.ac.at/maridict/site-2014/index.php?int=0>), and a corpus (http://gtweb.uit.no/u_korp/?mode=mhr).

- 4 The infinitival form of this copula is *ulaš*.

- 5 I do not discuss in this chapter the question about the syntactic structure of nominal expressions in Mari and use the term NP, in Grimshaw’s (1991) sense, as an extended nominal projection.

- 6 A zero copula in present tense in predicative constructions is by no means specific to Meadow Mari. The pattern is also found, for instance, in Hungarian (Dalmi 2010), Russian (Pereltsvaig 2007; Partee & Borschev 2007), Turkish (Zwart 2002), among other languages (Stassen 1996).

- 7 The distribution of these suffixes goes well beyond what could be sensibly put under the umbrella of possessive constructions. For a brief overview of non-possessive uses in different Finno-Ugric languages, see Simonenko (2014). The paradigm looks as follows, where brackets indicate possible allomorphy:

| | |
|----------|-----------|
| 1SG (e)m | 1PL (ə)na |
| 2SG (e)t | 2PL (ə)da |
| 3SG že | 3PL (ə)št |

- 8 I use the term *animate nouns* to refer to NPs denoting animate beings.

- 9 SIKOR 2016.

- 10 I use the following three queries [(word = ‘мыйын’)] [(pos = ‘N’)] [(word = ‘уло’)]; [(word = ‘мыйын’)] [(pos = ‘N’)] [(word = ‘уло’)]; [(word = ‘мыйын’)] [(pos = ‘N’)] [(word = ‘уло’)].

- 11 There is similar pattern in Russian where the presence/absence of an existential predicate in a possessive construction corresponds to the permanent/instantaneous interpretation contrast, as (i) and (ii) illustrate.

- (i) U menja est’ ružje.
at. I.GEN be.PRES3SG rifle.NOM
‘I have a rifle.’ (In general, at home.)

(ii) U menja ružje!
 at. I.GEN rifle.NOM

‘I have a rifle!’ (‘On me, in the current situation.’)

- 12 Evans (1995: 46) gives the following definition of control: ‘X [the possessor] can expect Y [the possessee] to be in the same place as X when X wants, and X can do with Y what X wants.’ I will limit myself to a more straightforwardly tested entailment, without claiming that it is the only one valid.
- 13 Pleshak (2018) makes an inventory of the relations expressible by adnominal possessive constructions in Mari, Mordvin and Permic languages.
- 14 I am not committing myself here to a specific layout of the clausal left-periphery, focusing on the projection that matters for the semantic analysis at hand, namely, the topic phrase. This is also a highly simplified representation with regard to the derivation of the tense-final order. For approaches to SOV involving left-branching TP and remnant VP movement, see Haegeman (2001). The simplified representation in (40) will suffice as an LF for my purposes here.
- 15 More specifically, in McNally’s system the existential predicate takes as its argument a nominalized function—the result of mapping a property onto its entity correlate—and maps it to truth in case there exists an individual in the extension of the nominalized function at a given spatio temporal index.
- 16 Naturally, the person of the controller depends on the features of the complement of the genitive morpheme.
- 17 Partee (1999) suggests that ‘the interaction of strong NP’s with the predicate *exist*, which is true of every entity in the domain, makes existential sentences containing strong NP’s come out either tautologous, contradictory, or else asserting or denying something they already presuppose.’

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