

# On a silent P licensing dative subjects and possessive markers in infinitival clauses

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## 1. Overview

The present paper focuses on the infinitival clauses in Meadow Mari (Uralic; head-final, SOV) that allow overt subjects and/or agreement on the infinitive, identical to the possessive morphology on nouns (1).<sup>1</sup> My first goal is to find out whether the two phenomena are related, as often argued in the literature on overt subjects and agreement in non-finite clauses in other languages, see Landau (2004) for a discussion. Second, I attempt to determine the source of the dative case assigned to the overt subjects and the agreement morphology, taking into account their restricted distribution.

- (1) a. (**Təlat**) kudəveče-š pur-aš-et, peče-m sümər-en-na.  
you.SG.DAT yard-ILL go-INF-POSS2SG fence-ACC break-PST2-1PL  
'We broke the fence for you (sg) to get into the yard.'
- b. Kudəveče-š pur-aš, peče-m sümər-en-na.  
yard-ILL go-INF fence-ACC break-PST2-1PL  
'We broke the fence to get into the yard.'

To account for the behavior of infinitival constructions in Mari, I outline a novel analysis whereby the overt embedded subjects are exceptionally licensed by a silent P<sub>DAT</sub> that heads (some) infinitival clauses. Agreement, in turn, becomes available due to the unique properties of the dative case, which in Mari was originally an adposition. This is schematized in (2).

- (2) [PP [CP DP infinitive ] P<sub>∅</sub>]  
          └───AGR───┬───┘  
                  └───DAT───┘

I further put the data into a broader context by discussing a prominent alternative analysis that postulates that the non-finite T itself has special Case/Agr properties; see for instance, such a proposal put forward for Russian, a contact language, by Moore & Perlmutter (2000), i.a. I show that, although this approach appears to match the data, it fails to make valid predictions.

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<sup>1</sup> The data presented in the paper come from the Morkinsko-Semur dialect of Meadow Mari, spoken in the Mari El republic, Russia, and were collected during elicitation sessions conducted with two native speakers who live in Budapest, Hungary. Both speakers lived in the Mari El republic until adulthood and still use Mari actively in their everyday life. The research was supported by the Hungarian National Research, Development and Innovation Office under the grant NKFI 129921.

Thus, the Mari data contribute to the discussion of exceptional case marking across the world’s languages and highlight the diversity of constructions involving inflected infinitives and embedded dative subjects.

The paper proceeds as follows. Section 2 describes the data and summarizes the relevant empirical observations. Section 3 presents the analysis: Section 3.1 considers infinitival purpose clauses, while Section 3.2 focuses on the non-finite dependants of evaluative adjectives and *polšaš* ‘help’. Section 4 discusses and dismisses the alternative approach, whereby DAT and AGR are available ‘from inside’ the non-finite clause due to the nature of the non-finite T. Section 5 concludes the paper.

## 2. The data: Agreeing infinitives and dative subjects

Meadow Mari, also known as Meadow-Eastern Mari and Eastern Mari, is one of the two closely related Mari languages, spoken in the Mari republic, Russian Federation, by approximately 470 000 speakers (mostly bilingual in Mari and Russian; Ethnologue, 2012); its status is described as “definitely endangered” in the UNESCO Atlas of the World’s Languages in Danger. Meadow Mari is often considered to be the standard variant of Mari and, for the sake of simplicity, throughout the paper I use the name “Mari” to refer to it. Similarly to many other Uralic languages, Mari is head-final with the fixed SOV word order and subject pro-drop.

Mari has several types of subordinate clauses, both finite and non-finite; the latter include infinitival and nominalized clauses and converbs. The present paper focuses on embedded infinitives derived from a verb using the suffix *-aš*; typically, they appear without an overt subject and do not exhibit any agreement morphology, as illustrated in (3).

- (3) a. Rveze-vlak peče-m törlat-en-ət.  
 boy-PL fence-ACC fix-PST2-3PL  
 ‘The boys fixed the fence.’
- b. Məj rveze-vlak-əm<sub>i</sub>[PRO<sub>i</sub> / \*nuno<sub>(i)</sub> / \*nunəlan<sub>(i)</sub> törlat-aš {-\*ət/\*əšt}]  
 I boy-PL-ACC they.NOM / they.DAT fix-INF-3PL/POSS3PL  
 jod-ən-am.  
 force-PST2-1SG  
 ‘I forced the boys to fix the fence.’

However, some infinitival clauses allow overt dative subjects (S<sub>DAT</sub>) and agreement marking (AGR) morphologically identical to possessive marking. The correlation between the two phenomena is quite complex and is outlined in Table 1 below; for comparison, I also consider infinitival clauses embedded under deontic modals and direct object control verbs such as *jodaš* ‘force’, already illustrated in (3).

Table 1: Distribution of S<sub>DAT</sub> and AGR in infinitival clauses.

	controller	embedded S <sub>DAT</sub>	POSS on INF
Subject-oriented purpose clauses	NOM	✓	✓
Dependant of an evaluative adjective	DAT	–	✓
Dependant of <i>polšaš</i> ‘help’	DAT	–	✓
Dependant of a deontic modal	DAT	–	–
Dependant of <i>jodaš</i> ‘force’	ACC	–	–

To summarize, AGR appears only when there is either a dative matrix controller or a dative embedded subject; however, the presence of a DP<sub>DAT</sub> does not automatically entail the presence of AGR (see modals). Let us discuss each case in more detail and provide examples.

In subject-oriented purpose clauses, AGR is present when the embedded subject is overt or covert and not coreferent with the matrix one (4a, b). When both an overt embedded subject and AGR are absent, obligatory control is established (4c).

- (4) a. Kogəl'-lan küjə-aš\*(əžə), duxovka-m čükt-əš-na.  
 pie-DAT cook-INF-POSS3SG oven-ACC turn.on-PST-1PL  
 'We turned on the oven for the pie to cook.'
- b. (Təlat) kudəveče-š pur-aš-et, peče-m sümər-en-na.  
 you.SG.DAT yard-ILL go-INF-POSS2SG fence-ACC break-PST2-1PL  
 'We broke the fence for you (sg) to get into the yard.'
- c. Kudəveče-š pur-aš, peče-m sümər-en-na.  
 yard-ILL go-INF fence-ACC break-PST2-1PL  
 'We broke the fence to get into the yard.'

Clauses under evaluative adjectives and *polšaš* 'help' pattern together: in such sentences AGR is optional but always cross-references the matrix dative controller (5) and referentially independent embedded subjects (overt DPs or *pro*-s) are prohibited (6, 7).

- (5) a. Məlanna<sub>i</sub> [PRO<sub>i</sub> kudəveče-š pur-aš(-na)] {nele/ saj}.  
 we.DAT yard-ILL go-INF-POSS1PL hard good  
 'For us it is difficult/good to get into the yard.'
- b. Təj məlanna<sub>i</sub> [PRO<sub>i</sub> Petja-m uż-aš(-na)] polš-en-at.  
 you.SG we.DAT Petja-ACC see-INF-POSS1PL help-PST2-2SG  
 'You (sg) helped us to see Petja.'
- (6) a. \*Məlanna [(təlat) kudəveče-š pur-aš-et] {nele/ saj}.  
 we.DAT you.SG.DAT yard-ILL go-INF-POSS2SG hard good  
 Intended: 'For us it is difficult/good for you (sg) to get into the yard.'
- b. \*Təj məlanna [(nunəlan) Petja-m uż-aš-əšt] polš-en-at.  
 you.SG we.DAT they.DAT Petja-ACC see-INF-POSS3L help-PST2-2SG  
 Intended: 'You (sg) helped us for them to see Petja.'
- (7) a. #[Kogəl'-lan küjə-aš(-əže)] nele.  
 pie-DAT cook-INF-POSS3SG hard  
 Intended: 'It is difficult for the pie to cook.'
- b. #Šokšo [šör-lan šop-aš(-əže)] polš-a.  
 heat milk-DAT go.sour-INF-POSS3SG help-NPST3SG  
 Intended: 'Heat helps milk to become sour.'

Finally, in clausal complements of deontic modals and verbs such as *jodaš* 'force, ask' neither an overt S<sub>DAT</sub> nor AGR can appear and the covert embedded subject is obligatorily controlled by the matrix DAT or ACC object, respectively (3b, 8). This undermines an otherwise plausible assumption that all infinitives in Mari agree with their subjects or that the availability of AGR depends on the presence of a dative controller.

- (8) a. Ač'a-ž-lan<sub>i</sub> [PRO<sub>i</sub> təšeč kaj-aš(-\*əže)] kül-eš.  
 father-DAT here.EL go-INF-POSS3SG be.necessary-NPST3SG  
 'For his/her father it is necessary to leave.'
- b. \*Ač'a-ž-lan [(təlat) təšeč kaj-aš-et] kül-eš.  
 father-DAT you.SG.DAT here.EL go-INF-POSS2SG be.necessary-NPST3SG  
 Intended: 'For his/her father it is necessary for you (sg) to leave.'
- c. #[Krovat'-vlak-lan pərd-əž vokten šog-aš(-əšt)] kül-eš.  
 bed-PL-DAT wall near stand-INF-POSS3PL be.necessary-NPST3SG  
 Intended: 'For the beds it is necessary to stand beside the wall.'

It might be suggested that the dative/accusative DP in (5), (3b) and (8a) is, in fact, the embedded subject itself, i.e. that such constructions involve ECM or raising and not control. However, the sentences do not pass the standard raising tests: for instance, the dative/accusative DP cannot be [-Animate] – it is not selected by the embedded predicate (7, 8c). Furthermore, evaluative adjectives, *polšaš* 'help' and deontic modals also embed finite clauses with a non-controlled subject and (for modals) DP dependants, in the presence of a matrix dative DP and in the absence of an infinitival clause (9).

- (9) a. **Məlanna** saj [kunam Petja kudəveče-š pur-a].  
 we.DAT good when Petja yard-ILL go-NPST3SG  
 'For us it is good when Petja goes into the yard.'
- b. [Nuno savar-əm ačal-əšt manən] təj **məlanna** polš-en-at.  
 they fence-ACC fix-JUS3PL COMP you.SG we.DAT help-PST2-2SG  
 'You (sg) helped us for them to fix the fence.'
- c. **Məlanna** kogəl'o kül-eš.  
 we.DAT pie be.necessary-NPST3SG  
 'We need a pie.' Literally: 'For us a pie is necessary.'

### 3. Proposal: A silent P head

#### 3.1. Dative subjects and agreement in purpose clauses

To account for the empirical observations summarized in Section 2, I propose that both overt subjects and AGR appearing in infinitival clauses depend on the availability of the dative case, which in turn is licensed by a silent P head that selects some, but not all, non-finite clauses. Let us first discuss licensing of embedded DP subjects and agreement marking in the non-finite purpose clauses and then turn to the sentences with evaluative adjectives and *polšaš* 'help'.

I assume that in Mari embedded DP subjects can in principle be present only in those non-finite clauses where the dative case is available, since for a derivation to survive all DPs must be case-licensed (Case Filter). I propose that dative is exceptionally licensed from outside by a covert P head that selects the clause as its complement.<sup>2</sup> The dative P is also responsible for the presence of AGR. The silent dative PP is added on top of all and only infinitival clauses that allow AGR, namely, the subject-oriented purpose adjuncts, dependants of evaluative adjectives and *polšaš* 'help'; however, the motivation for its presence varies.

<sup>2</sup> I argue against analyzing dative as a structural case assigned within an infinitival clause by the non-finite T head itself; see Section 4 for a discussion.

I propose that the purpose adjuncts were originally embedded under the dative adposition ( $P_{DAT}$ ), which was later reanalyzed as a case marker. The P head is now silent but the dative case is still available and can exceptionally be assigned to the embedded subject (10); cf. Emonds (1985) on Ps being alternatively realized by explicit case morphology on the complement.

$$(10) \quad [PP \ [CP \ \underbrace{DP \ infinitive}_{DAT} \ ] \ P\emptyset]$$

That the  $P_{DAT}$  is present on top of the CP is evident in that native speakers still allow dative to combine with a purpose infinitive: examples in (11) can be used on par with those in (4b, c) and have the same interpretation.

- (11) a. [Kudəveče-š pur-aš-**lan**]                      peče-m      sümər-en-na.  
           yard-ILL      go-INF-DAT                      fence-ACC    break-PST2-1PL  
           ‘We broke the fence to get into the yard.’
- b. [Kudəveče-š pur-aš-**lan-et** / \*pur-aš-**et-lan**]      peče-m      sümər-en-na.  
           yard-ILL      go-INF-DAT-POSS2SG    go-INF-POSS2SG-DATfence-ACC    break-PST2-1PL  
           ‘We broke the fence for you (sg) to get into the yard.’

Thus, the dative case assignment in Mari happens from outside of the non-finite TP by a higher head with idiosyncratic properties and can be compared to the way the prepositional *for* complementizer licenses an overt subject in English *I wanted for her to be there*.

As for the agreement marking, I propose that it results from an Agree relation being established between the (silent)  $P_{DAT}$  and the embedded subject (usually a (silent) pronoun), therefore an AGR appears whenever DAT is available (12).<sup>3</sup>

$$(12) \quad [PP \ [CP \ \underbrace{DP \ infinitive}_{\begin{smallmatrix} \uparrow \\ \text{AGR} \end{smallmatrix}} \ \underbrace{\phantom{DP \ infinitive}}_{DAT} \ ] \ P\emptyset]$$

Notice that the paradigm of agreement markers that appear on infinitives is identical to those on postpositions and in possessive constructions, but does not exactly match the usual person and number exponents of T/Infl; see Table 2 below for a comparison and examples (Riese et al. 2019). This is accounted for by the proposed analysis: the inflections that we observe on infinitives spell out the acquired features of P.

Table 2: Agreement morphology.

	POSS	postposition	infinitives	finite agreement		
				NPST	PST	PST2 (PFV)
1SG	el-em ‘my country’	ončəln-em ‘in front of me’	pur-aš-em ‘me to go’	kočk-am ‘I eat’	kočk-əm ‘I ate’	lud-ən-am ‘I have read’

<sup>3</sup> The exact size of the embedded clause (i.e. CP or FinP) is yet to be determined. However, the CP layer, if present, would not necessarily posit a problem for agreement and case assignment. It could be proposed that those happen in a cyclic way, via the C head itself. Alternatively, one might suggest that the embedded subject raises to the edge of the CP phase. I leave this issue to be investigated by future research.

2SG	el-et	ončəln-et	pur-aš-et	kočk-at	kočk-əč	lud-ən-at
3SG	el-že	ončəln-əžo	pur-aš-əže	kočk-eš	kočk-o	lud-ən
1PL	el-na	ončəln-əna	pur-aš-na	kočk-əna	koč-na	lud-ən-na
2PL	el-da	ončəln-əda	pur-aš-da	kočk-əda	koč-da	lud-ən-da
3PL	el-əšt	ončəln-əšt	pur-aš-əšt	kočk-ət	kočk-əč	lud-ən-ət

The assumption that the dative postposition probes its complement, which results in an agreement marker, is not unreasonable: across the Uralic languages, adpositions regularly bear a suffix cross-referencing the embedded nominal. For an example, consider (*én-)**előtt-em* ‘I-front-POSS1SG’ (‘in front of me’) in Hungarian or *vəž ul-ti-əz* ‘bridge under-PROL-POSS3SG’ (‘under the bridge’) in Beserman Udmurt (Arkhangelskiy & Usacheva 2015); on other language families see, for instance, Kayne (2007). In modern Mari overt agreement on postpositions is restricted to pronominal dependants: *ončəln-em* ‘in front of me’ but *Petja ončəln* ‘in front of Petja’.

As indicative of postpositive constructions, the dative personal and reflexive pronouns contain an agreement/possessive marker as well: *mə-lan-na* we-DAT-POSS1PL ‘to/for us’, *ška-lan-et* self-DAT-POSS2SG ‘to/for yourself’, etc. Again, I argue that the possessive suffix here is a result of agreement of the silent P with the (pronominal) head.

### 3.2. Agreeing infinitives under adjectives and ‘help’

Let us now move on to the infinitival clauses embedded under evaluative adjectives and *polšaš* ‘help’. Recall that they allow agreement but prohibit referentially independent DP subjects (that is, they are restricted to obligatory control). I argue that the analysis outlined above for purpose clauses can account for this behavior, with some modification. In essence, I propose that these subordinate clauses are also headed by a silent P<sub>DAT</sub> that agrees with the embedded subject (PRO); however, the source for it is different.

First, I argue that the clausal dependants of evaluative adjectives and ‘help’ are adjuncts, in contrast to the clausal arguments of modals and *jodaš* ‘force, ask’.<sup>4</sup> This is supported by the results for the sub-extraction test. In Mari, complement clauses allow sub-extraction, as shown in (13a, b). On the other hand, adjunct clauses, such as converbs and purpose infinitives, are opaque for A-bar movement (13c, d).

- (13) a. Nuno məlanna [kō-m šel-aš] kalas-en-ət?  
 they we.DAT who-ACC hit-INF tell-PST2-3PL  
 ‘Who did they tell us to hit?’
- b. Kō-m<sub>i</sub> nuno məlanna [t<sub>i</sub> šel-aš] kalas-en-ət?  
 who-ACC they we.DAT hit-INF tell-PST2-3PL  
 ‘Who did they tell us to hit?’
- c. Me [kō-m šel-ən] kaj-əš-na?  
 we who-ACC hit-CVB go-PST-1PL  
 ‘Who did we leave having hit?’
- d. ??Kō-m<sub>i</sub> me [t<sub>i</sub> šel-ən] kaj-əš-na?  
 who-ACC we hit-CVB go-PST-1PL  
 ‘Who did we leave having hit?’

<sup>4</sup> See also Burukina (2021) for an analysis of the non-finite dependants of *pomoč* ‘help’ in Russian as adjuncts.

As demonstrated in (14), the infinitival CPs in sentences with an evaluative adjective and ‘help’ pattern with the adjunct clauses in restricting A-bar sub-extraction.

- (14) a. Məlanna [kuš pur-aš] nele?  
 we.DAT where go-INF hard  
 ‘Where is it hard for us to go to?’
- b. ?Kuš<sub>i</sub> məlanna [t<sub>i</sub> pur-aš] nele?  
 where we.DAT go-INF hard  
 ‘Where is it hard for us to go to?’
- c. Nuno məlanna [kuš pur-aš] polš-en-ət?  
 they we.DAT where go-INF help-PST2-3PL  
 ‘Where did they help us to go to?’
- d. ?Kuš nuno məlanna [t<sub>i</sub> pur-aš] polš-en-ət?  
 where they we.DAT go-INF help-PST2-3PL  
 ‘Where did they help us to go to?’

Additionally, that the subordinate clauses in such examples as (14a, 14c) are adjuncts straightforwardly explains their optionality and the alternation with typical clausal adjuncts illustrated in (9a, 9b) in Section 2.

Second, following Landau (2015), I assume that in at least some sentences with an embedded non-finite clauses obligatory control of PRO results from the infinitival constituent being predicated of a matrix DP; the idea can be traced back to Williams (1980). The configuration is identified by the control being exhaustive (since predication is a strict relation). Indeed, partial coreference between the PRO and the controller is prohibited in the sentences with an evaluative adjective or ‘help’ under discussion.

- (15) a. Təlat<sub>i</sub> [PRO<sub>i</sub> kudəveče-š (??pərl’a) pur-aš] nele.  
 you.SG.DAT yard-ILL together go-INF hard  
 ‘For you (sg) it is difficult to go into the yard.’
- b. Məj təlat [PRO<sub>i</sub> kudəveče-š (??pərl’a) pur-aš] polš-en-am?  
 I you.SG.DAT yard-ILL together go-INF help-PST2-1SG  
 ‘I helped you (sg) to go into the yard.’

An infinitival clause is turned into a property-type expression ( $\langle e, \langle s, t \rangle \rangle$ ) due to the presence of a variable, PRO (Williams 1980). This makes such clauses akin to depictive secondary predicates. In Mari, depictives exhibit obligatory concord with the antecedent, including concord in oblique/locative cases (former adpositions), as exemplified in (16) with a depictive secondary predicate dependent on an indirect object.

- (16) Šužar-et-**lan**, moskosə-**lan**, salam-əm kalas-e.  
 sister-POSS2SG-DAT Moscovian-DAT greeting-ACC tell-IMP  
 ‘Say hello to your sister, the one in Moscow.’

A plausible assumption is for clausal secondary predicates to exhibit a similar behavior. Since

the controller in sentences such as (15) is dative,<sup>5</sup> a PP headed by a silent P<sub>DAT</sub> is also introduced on top of the embedded clause (17). The P<sub>DAT</sub> agrees with the embedded subject, after predication is established, which results in the presence of an agreement marker.

(17) [VP/AP [PP DP<sub>DATi</sub> P<sub>Ø</sub>] [V/A' [V/A' *polšaš/nele*] [PP [FinP PRO<sub>i</sub> infinitive] P<sub>Ø</sub> ]]]

A question remains regarding the ban on non-controlled DP subjects in such constructions, since those can potentially be licensed by the P<sub>DAT</sub>. Recall, however, that predicative subordinate clauses (such as those under evaluative adjectives and ‘help’) must contain a variable, either a PRO or a bound personal pronoun.<sup>6</sup> Otherwise, the clause is a fully saturated proposition (<s,t>); hence, no predication can be established and the derivation crashes.<sup>7</sup>

#### 4. An alternative approach

Under the proposed analysis (Section 3) the availability of dative subjects and agreement in Mari infinitives is exceptional in a sense that it depends on the presence of a higher P<sub>DAT</sub>. Thus, the clausal complements of deontic modals and *jodaš* ‘force, ask’ are selected directly, hence there is no source for dative and AGR (18).<sup>8</sup>

(18) a. [ModP [PP DP<sub>DATi</sub>] [Mod' [CP PRO<sub>i</sub> infinitive] modal ]]  
 b. [VP [RP DP<sub>ACCi</sub> [R' [FinP PRO<sub>i</sub> infinitive] R<sup>0</sup>]] *jodaš* ]

An alternative analysis for the sentences under discussion might be suggested, whereby it is the embedded non-finite T head itself, equipped with a particular set of features, that is responsible for the dative case and AGR. A proposal along this line was made for Russian (a contact language); see Comrie (1974), Greenberg (1985), Franks & Hornstein (1992), Moore & Perlmutter (2000), i.a.<sup>9</sup> In this section I will briefly discuss this approach and show that no

<sup>5</sup> That the dative controller is a PP does not posit a problem: across the world’s languages DPs are shown to be able to obligatorily control PRO out of a PP; cf. in English *Susan demanded [from Peter<sub>i</sub>] [PRO<sub>i</sub> to go there]*.

<sup>6</sup> As shown in (5a) and elsewhere throughout the paper, inflectional morphology on an infinitive embedded under an evaluative adjective or *polšaš* ‘help’ is optional. I suggest that the infinitival dependant in such examples can have either of the two underlying structures, as shown in (i), since both PRO and *pro* can function as a variable to turn the FinP into a predicate (Den Dikken 2017).

(i) a. [PP [FinP PRO<sub>i</sub> infinitive] P<sub>Ø</sub>]  
 b. [PP [FinP *pro*<sub>i</sub> infinitive] P<sub>Ø</sub>]

Assuming that PRO in (ia) can remain caseless (or receive the special null case), only *pro* in (ib) is probed by the silent preposition and is assigned dative.

<sup>7</sup> Subject-oriented purpose clauses allow partial control (i). Following Landau (2015), I assume that such non-finite constituents are not predicated of the controller but have a larger structure; namely, they are fully saturated CPs, which makes a ‘no control’ configuration possible.

(i) [PRO<sub>i</sub>+ kudəveče-š parl’a pur-aš], məj<sub>i</sub> peče-m sümər-en-am.  
 yard-ILL together go-INF I fence-ACC break-PST2-1SG  
 ‘I broke the fence to get into the yard together.’

<sup>8</sup> For *jodaš* I adopt the structure outlined in Landau (2015), Burukina (2020) for implicative predicates, such as force and compel in English and their translation equivalents in Russian; RP here stands for a relator phrase where R is a relator, a functional head that connects the subject of the small clause and the predicate together (Den Dikken 2006). At this point, nothing hinges on the exact analysis; what is crucial is that the embedded CP is not headed by a preposition.

<sup>9</sup> Inflected infinitives are also attested in Hungarian (Tóth 2000, Landau 2004). Much of the work on Hungarian



independent support for it can be found in the case of Mari.

In Russian, overt dative subjects are usually prohibited in obligatory control constructions; nevertheless, it has been proposed that the non-finite T is capable of assigning a structural case (dative) to the subject. Crucial evidence for this comes from the behavior of embedded subject-oriented case-concord items, such as ‘(him)self’ and ‘alone’. In finite clauses these elements must exhibit the same case as the antecedent (19a). When used in non-finite clauses they can carry dative even when the matrix controller is nominative or accusative (19b, c).

- (19) a. Ty počinił zabor sam / odin.  
 you.SG.NOM fixed fence.ACC self.M.NOM alone.M.NOM  
 ‘You (sg) fixed the fence yourself/alone.’
- b. Ona poprosila tebjaj<sub>i</sub> [PRO<sub>i</sub> samomu / odnomu pocinit’ zabor].  
 she asked you.SG.ACC self.M.DAT alone.M.DAT fix.INF fence.ACC  
 ‘She asked you (sg) to fix the fence yourself/alone.’
- c. Ty<sub>i</sub> obeščal ej [PRO<sub>i</sub> samomu / odnomu pocinit’ zabor].  
 you.SG.NOM promised she.DAT self.M.DAT alone.M.DAT fix.INF fence.ACC  
 ‘You (sg) promised her to fix the fence yourself/alone.’

The antecedent for the subject-oriented semi-predicatives embedded in non-finite clauses in (19) is the silent PRO subject; since a semi-predicative always gets the same case as its antecedent, a dative-marked *sam/odin* indicates that the PRO is dative. The case cannot be ‘copied’ from the controller (nominative/accusative); the commonly accepted explanation is that it is assigned by the non-finite T head itself, in parallel to how finite T assigns nominative.<sup>10</sup>

In addition to this, notice that in Russian overt dative subjects are attested in a broad range of non-finite adjunct clauses: if-clauses, temporal anteriority clauses, etc. (20).

- (20) a. My slomali zabor, čtoby (tebe) vojti vo dvor.  
 we broke fence so.that you.SG.DAT enter.INF into yard  
 ‘We broke the fence (for you) to get into the yard.’

adopts the Agree theory of control (Landau 2004, i.a.). One disadvantage of this approach is that it provides no real explanation for the presence of/ban on AGR, simply taking it as predetermined; the theory also relies on the notion of “abstract agreement”, i.e. agreement that is present but morphologically always invisible, which remains a stipulation. For a discussion of the general problems with the Agree theory of control see Landau (2015).

<sup>10</sup> The data is, in fact, more complex, and there are, clearly, other factors yet to be examined that influence speakers’ judgments and lead to apparent inconsistency of evaluations (consider, for instance, the difference between *odin* and *sam* in (i)).

- (i) Petjaj<sub>i</sub> rešil [PRO<sub>i</sub> sdelat’ \*odnomu / samomu zadanije].  
 Petja decided do alone.DAT self.DAT task.ACC  
 ‘Petja decided to do the task alone/himself.’

It should also be noted that ordinary secondary predicates that in finite clauses bear the same case as their antecedents, can never be dative in an embedded non-finite clause (ii).

- (ii) Petjaj<sub>i</sub> rešil [PRO<sub>i</sub> ne prixodit’ bol’še pjanyj / \*pjanomu domoj].  
 Petja decided NEG come.INF anymore drunk.NOM drunk.DAT home  
 ‘Petja decided not to come home drunk anymore.’

The difference between secondary and semi-predicatives is unexpected under the assumption that they establish case concord with the embedded dative-marked PRO subject (Franks 2014, Burukina 2020, i.a.). Yet the structural dative analysis is adopted by many researchers and is thus worth mentioning in this paper.

- b. Jesli **nam** prijti poran'se, oni udiv'atsa.  
 if we.DAT come.INF earlier they.NOM get.surprised  
 'If we come earlier they will be surprised.'
- c. Prežde čem (**tebe**) idti tuda, davaj rešim problemu.  
 before than you.DAT go.INF there let's solve problem  
 'Let's solve this problem before we/you go there.'

However, the same line of argumentation is hard to justify in Mari. First, embedded subject-oriented items in this language always bear the same case as the controller, as in (21).

- (21) a. Məlanna<sub>i</sub> [PRO<sub>i</sub> peče-m ška-lan-na / \*ške törlat-aš] küles.  
 we.DAT fence-ACC self-DAT-POS.1P self fix-INF is.necessary  
 'We must fix the fence ourselves.'
- b. Məj tud-əm<sub>i</sub> [PRO<sub>i</sub> peče-m šken-žə-m / #ška-lan-že  
 I s/he-ACC fence-ACC self-POSS3SG-ACC self-DAT-POSS3SG  
 törlat-aš] jod-ən-am.  
 fix-INF force-PST2-1SG  
 'I forced her/him to fix the fence her/himself.'  
 #: 'I forced her/him to fix the fence for her/himself.'

Second, overt dative subjects are not attested in Mari in other adjunct clauses except for the purpose infinitives considered in the paper (22).

- (22) [(\*Təlat) peče-m sümər-aš(-\*na/\*et) gən] kudəveče-š pur-əna.  
 you.DAT fence-ACC break-INF-POSS1PL/2SG if yard-ILL go-NPST1PL  
 'If we break the fence we will get into the yard.'

Thus, an analysis along this line – that dative is generally assigned to the embedded subject by the non-finite T – would remain highly speculative if applied to the Mari data. In contrast, the approach proposed in the paper fully captures the distribution of dative subjects and agreement in infinitival clauses in Mari and further accounts for the peculiar properties of non-finite subordinate clauses, including the presence of the dative suffix on the purpose infinitives and the exhaustivity of control in sentences with a matrix evaluative adjective or *polšaš* 'help'.

## 5. Conclusion

The paper considered inflected infinitives in Mari, a Uralic language, some of which alternate between enforcing obligatory control and allowing referentially independent subjects. To account for the distribution of embedded dative subjects and agreement marking in Mari non-finite clauses I proposed that the two phenomena depend on the presence of a (silent) dative adposition ( $P_{DAT}$ ) that selects the clause as its complement and exceptionally probes the embedded subject. The data contribute to the discussion of the nature of the dative case and open a way for comparison of Mari with other typologically distinct non-Uralic languages that allow exceptional case licensing by a preposition heading the embedded clause, including Romance languages; see, for instance, Barbosa (2020) on the so-called Prepositional Infinitival Construction in European Portuguese and references therein.

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## Resources

- Ethnologue. Mari, Meadow. Available online at [www.ethnologue.com/language/mhr](http://www.ethnologue.com/language/mhr)
- UNESCO Atlas of the World's Languages in Danger. Eastern Mari. Available online at [www.unesco.org/languages-atlas/](http://www.unesco.org/languages-atlas/)