

# Case & agreement puzzle in Moksha debitive

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# Talk layout

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- \* Case marking and agreement
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# Moksha

Uralic > Finno-Ugric > Mordvin > Moksha

Relevant facts:

- Differential object marking (DOM) (two series of case markers: DEF/INDEF, subject and subject-object conjugation);
- definite accusative and definite genitive are marked identically;
- non-finite verb forms are made with the *-əm* suffix and can be sentential arguments, nominalizations and **debitives**.

## Debitive construction

Moksha debitive is a dative-infinitive construction; meaning – deontic necessity (Zakirova 2018).

- (1) *pet'ε-n'd'i tu-ma kud-u*  
P.-DAT go-NZR house-LAT

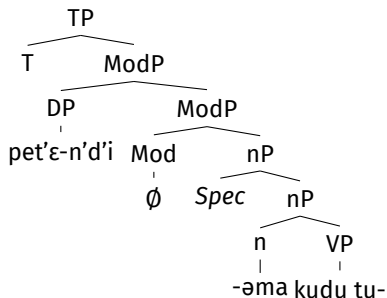
'Pet'a needs to go home.'

- (2) *wit'a-n'd'i kn'iga-t'n'ə luvə-ma-t*  
W.-DAT book-DEF.PL read-NZR-NPST.3PL

'Wit'a needs to read the books.'

# Structure of the debitive

I propose a null modal verb. Dative-infinitive constructions have received similar treatment in other languages (Burukina 2020, Marušič et al. 2006).



# Why a modal?

The arguments in favour of the null modal analysis:

1. The nominalization is not a nominal predicate modifying the IA;
2. There are two possible scopes of negation;
3. The modal can be modified by adverbs.

# Nominal predicate?

**Hypothesis:** the debitive's nominalisation is a nominal predicate modifying the DEF.NOM-marked IA (false)

Unmarked 3PL subjects of nominal predicates can't control plural agreement. In finite clauses and the debitive they can.

	<b>debitive</b>	<b>nominal predication</b>
$\emptyset$	OK	OK
<b>agree</b>	OK	*

Table: Agreement with unmarked 3PL, debitive and nominal predication

# Negation scopes

There are two possible scopes of negation.

(3) *mon'-d'ejə-n*                      *af*   *mol'ə-ma*   *škola-v*  
I.OBL-PRON.DAT-1SG.POSS   NEG   go-NZR   school-LAT

'I do not have to go to school (I might though).'

NEG > ∀

'I can't go to school (I am not allowed).'

∀ > NEG



# Adverbs

The modal can be modified by an adverb (e.g. *pek* 'very').

(4) *mon'-d'eja-n*                      *s'im-ama pek t'ε tabletka-s'*  
I.OBL-PRON.DAT-1SG.POSS    drink-NZR    very    this    pill-DEF.SG

'I really need to take this pill'

So, there is a null modal in the matrix clause.

## Case marking

External argument of the nominalised verb is dative.

- (5) *mon'-d'ejə-n*                      *ud-əma*  
I.OBL-**PRON.DAT**-1SG.POSS sleep-NZR

'I need to go to sleep.'

## Case marking

The internal argument has three case options: DEF.NOM, DEF.GEN and no marking. Case marking in finite clause or nominal domain is different.

- (6) *pid'-əma jam/ jam-s'/ jam-t'*  
cook-NZR cereal cereal-DEF.NOM cereal-DEF.GEN

'It's necessary to cook some cereal.'

Case marking	EA	IA
Finite clause	DEF.NOM, $\emptyset$	DEF.GEN, $\emptyset$
Nominalization	DEF.GEN	GEN
Debitive	DAT	DEF.GEN, DEF.NOM, $\emptyset$

Table: Case marking of internal and external arguments in Moksha transitive clauses

# Agreement

The debitive exhibits personal agreement with its IA (7).

- (7) *min'* was'ftə-ma-**tamə** pot'ma-sə  
**we** meet-NZR-**NPST.1PL** Pot'ma-LOC

'It's necessary to meet us in Pot'ma.'

The external argument does not control agreement (8). The agreement morphology is verbal, near-identical to subject conjugation.

- (8) *mon'-d'ejə-n* *ud-əma*  
I.OBL-PRON.DAT-1SG.POSS sleep-NZR

'I need to sleep.'

## Agreement and case

The DEF.NOM argument always controls agreement (if it is 3PL). Agreement with a DEF.GEN argument is prohibited. Agreement with the unmarked PL is optional.

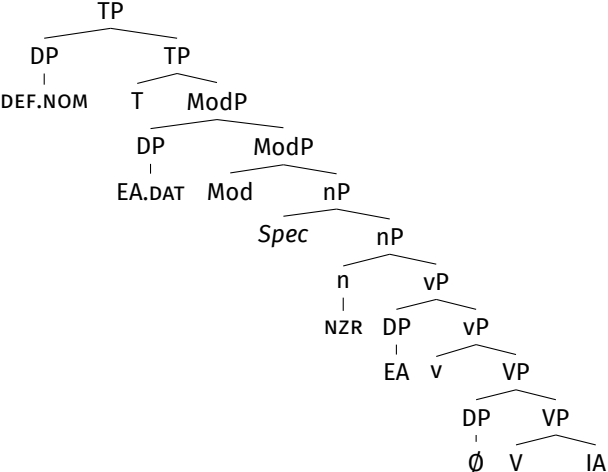
- (9) a. *wit'a-n'd'i kn'iga-t'n'ə luvə-ma-\*(t)*  
W.-DAT      book-DEF.PL    read-NZR-NPST.3PL  
‘Wit'a needs to read the books.’
- b. *\*wit'a-n'd'i kn'iga-t'n'an' luvə-ma-t*  
W.-DAT      book-DEF.GEN    read-NZR-NPST.3PL  
‘Wit'a needs to read the books.’
- (10) *mon/ ??mon' sn'imand-əm-an*  
I/      I.GEN    photograph-NZR-NPST.1SG  
‘I need to be photographed.’

# Questions

- i. Why can the internal argument be marked with both the 'subject' and the 'object' cases?
- ii. Why are there verbal agreement markers on a nominalization?
- iii. Why are these subject conjugation markers, when the agreement is with the IA?

# Proposal

The IA can move to the matrix subject position as well as stay in the embedded clause, and that is how the case marking and agreement patterns are derived.



# A-dependencies

There can be two A-dependencies between the clauses (the external and the internal argument).

- **Hypothesis i:** the dative obligation holder controls the embedded PRO (false)  
Hypothesis i would make movement of the IA to the matrix clause impossible, and 'object' PRO is nonexistent (Martin 2001).
- **Hypothesis ii:** the dative EA is moved out of the embedded clause (maybe true)  
Movement of both arguments is OK.



# Case discrimination

According to Preminger 2014, agreement is case-sensitive – whether an NP can control agreement is determined by a rule in (11).

(11)  $FIND_{\phi}(f)$

Given an unvalued feature  $f$  on a head  $H^0$ , look for an XP bearing a valued instance of  $f$ . Upon finding such an XP, check whether its case is acceptable with respect to case discrimination:

- a. *yes* → assign the value of  $f$  found on XP to  $H^0$
- b. *no* → abort  $FIND_{\phi}(f)$

If a case on the Moravcsik hierarchy can control agreement, all cases above it can.

- (12) *The Moravcsik hierarchy* (second and final revision; Bobaljik 2008)  
unmarked case > dependent case > lexical/oblique case

## Case discrimination

The pattern in Moksha: nominative controls subject agreement, genitive does not. Based on the Moravcsik hierarchy and general observations, Moksha case hierarchy in the verbal domain, after [Marantz 2000](#), is this (tentatively):

- i. lexical case – DAT
- ii. dependent case – DEF.GEN
- iii. unmarked case – DEF.NOM
- iv. default case –  $\emptyset$

Regardless of how the operations are timed or whether there is a clause boundary, **we can't derive both definite genitive and definite nominative for the internal argument**. The dative EA has lexical case, so the remaining argument cannot receive dependent case. But what is it in a nominal domain?..

# Possible positions of the IA

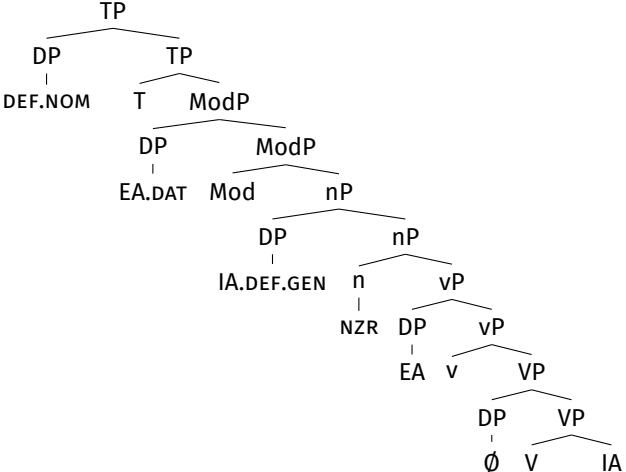
The internal argument can have three different positions:

<b>Position</b>	<b>Expected case marking</b>	<b>Domain</b>	<b>Agreement</b>
embedded VP	unmarked/default case	verbal	none
matrix modal verb argument	unmarked case	verbal	verbal
nP dependent	unmarked case	nominal	possessive

Table: Different positions of the internal argument

# Embedded VP & matrix TP

If the IA stays where it was base-generated (in the verbal domain), it remains unmarked ( $\emptyset$ ), since the EA's trace bears lexical case. Matrix Spec, TP is the only position where DEF.NOM is possible.



## Nominalisation possessor

Moksha event nominalisations have genitive dependents and possessive agreement. They can also attach case markers.

- (13) *s't'ər'-n'ε-t'*                      *l'εm-ən'*      *pid'-əma-c*  
girl-DIM-DEF.SG.GEN    soup-GEN    cook-NZR-3SG.POSS.SG  
*zan'ε-s'*                      *kaftə čast-t*  
take-PST[3SG]    two    hours-PL

'The girl's cooking of the soup took two hours' (Zakirova 2018)

The debitive never attaches possessive/case markers, only verbal agreement and tense (IMPF marker *-l'*).

## Nominalisation possessor

Both GEN and DEF.GEN can mark nominal dependents, also possessive suffixes sometimes appear on the head. Why is there no GEN option and never a possessive marker on the debitive? Below are all the marking options for Moksha possessives:

1. dep head
2. dep-GEN head
3. dep-GEN head-POSS (proper name heads only)
4. **dep-DEF.GEN head** (oblique case heads only)
5. dep-DEF.GEN head-POSS

(Pleshak 2015)

Plausible explanations are:

- A. The debitive's nominalisation is in an oblique case (or something of the same effect)
- B. No possessives/GEN-dependents with an NP head

Hypothetical premises:

- Head- $\emptyset$  iff Head is smaller than DP
- Dependent.GEN iff Head is a DP

# Answers

- i. **Why can the internal argument be marked with both the 'subject' and the 'object' cases?**  
Because of its two possible positions in the structure (matrix subject and, well, somewhere else).
- ii. **Why are there verbal agreement markers on a nominalization?**  
From the presence of a null modal verb.
- iii. **Why are these subject conjugation markers, when the agreement is with the IA?**  
The IA controls agreement only when it is in the matrix subject position.

## Appendix

		<b>SG</b>	<b>PL</b>
	<b>NOM</b>	∅	
<b>INDEF</b>	<b>GEN</b>	-ən'(n'ə)	-t/-t'
	<b>DAT</b>	-ən'd'i	
	<b>NOM</b>	-s'/c'	-(t')n'ə
<b>DEF</b>	<b>GEN</b>	-t'	-(t')n'ə-n'
	<b>DAT</b>	-t'i	-(t')n'ə-n'd'i

Table: Case marking paradigm (non-locative cases only)



# Appendix


	<b>SG</b>	<b>PL</b>
<b>1</b>	-n	-tamə
<b>2</b>	-t	-tadə
<b>3</b>	∅	-t

Table: Personal agreement on the debitive

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