

# The syntax of complements with Subject and Subject-Object agreement of complement-taking predicates in Moksha Mordvin<sup>1</sup>

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## 1. Introduction

Sentential complements are defined as clauses that function as arguments of a predicate (Noonan 1985: 52), “complement-taking predicate” (CTP). However, it has been claimed that in some languages some types of sentential complements do not demonstrate the morphosyntactic properties of nominal arguments of the CTP or do not have a DP-layer, cf. (Dalrymple, Lødrup 2000, Kastner 2015).

For example, in English some sentential complements do not become subjects when the CTP is passivized (Dalrymple, Lødrup 2000, Letutshiy 2012):

- (1) a. That the earth is round was not believed. [Dalrymple, Lødrup 2000: 5]  
b. \*That it would rain was hoped. [Dalrymple, Lødrup 2000: 6]

Another example is that in many languages with polypersonal agreement some types of sentential complements do not trigger agreement on CTPs, i.e. in Adyghe, Itelmen etc.

(2) ADYGHE

- a. č'ale-m pšaše-r ə-g<sup>w</sup> r-j-e-hə  
boy-ERG girl-ABS 3SG.PR-heart LOC-3SG.A-DYN-carry  
*The boy likes the girl.*
- b. c<sub>w</sub>əmpə-r qe-sə-wəβ<sub>w</sub>ejə-n-č'e sə-g<sup>w</sup> r-j-e-hə  
strawberry-ABS DIR-1SG.A-gather-POT-INS 1SG.PR-heart LOC-3SG.A-DYN-carry  
*I like to gather strawberries.*

We consider the syntactic properties of object agreement markers in Moksha-Mordvin and argue that complements that do trigger object agreement are DPs/NPs, while other complements are not.

## 2. Subject and subject-object agreement in Moksha-Mordvin

Moksha-Mordvin distinguishes subject vs. subject-object agreement patterns (subject vs. subject-object conjugations in Kolyadyonkov (1954)). The subject agreement pattern is used with intransitive verbs (3), while transitive verbs can take the markers of both agreement patterns, subject-object (SO) and subject (S), see (4-5).

- (3) son sa-s' kud-u  
s/he come-PST.3SG house-ILL  
*He came home.*
- (4) a. son s'uc'ə-z'ə id'-ənc  
s/he scold-PST.3SG.O.3SG.S child-3SG.P.SG.GEN  
*She scolded the child.*

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b. son s'uc'ə-z'n'ə id'-ənzə-n  
 s/he scold-PST.3PL.O.3SG.S child-3SG.P.PL-GEN  
*She scolded the children.*

(5) son s'uc'ə-s' c'ora-n'ε / c'ora-n'ε-t  
 s/he scold-PST.3SG boy-DIM boy-DIM-PL  
*She scolded a boy / boys.*

The choice of the agreement pattern is regulated by the definiteness and animacy of the direct object, aspectual properties of the verb etc. (Bartens 1999: 125). Cf. Molnár (1998), Kiss (2004) for Hungarian, Nikolaeva (1999) for Khanty, Nikolaeva (2014) for Nenets.

In the telic clauses DO can be expressed by the construction NP+GEN *esə* (in.IN) (6). Such NPs do not show syntactic properties of the DO, see (Kozlov 2017).

(6) **st'ir'-n'ε-t'** **esə** vešənc't' kaftə ned'al'a-t  
 girl-DIM-DEF.SG.GEN in.IN search.PST.3PL two week-PL  
*They have been looking for the girl for 2 weeks.*

In Moksha-Mordvin genitive DOs usually trigger object agreement, while nominative DOs do not. Recent studies of DOM in Moksha-Mordvin (Toldova 2017, Kozlov 2017) claim that the following types of DOs take genitive case and trigger object agreement<sup>2</sup>:

- 1) definite DOs,
- 2) partitive DOs (part of a definite set/mass),
- 3) topical generic DOs.

In all other cases DOs are in nominative and do not trigger object agreement.

Many CTPs can take both agreement patterns (3ab), cf. (Feoktistov 1993: 206). Moreover, one and the same CTP can take both agreement patterns with one and the same complement type:

(7) a. mon **iz'-in'ə** ars'-ə [što son t'aftamə s'ir'ə],  
 I NEG.PST.3.O.1SG.S think-CN COMPL s/he so old  
 son pək octə n'eft'-i  
 s/he very new.EL look-NPST.3SG  
*{Context: 'Why didn't you help Mariya Ivanovna with the heavy bags? She's already past 80! -} I didn't think she's that old, she looks young.'*

(7) b. **t'a-t** / **\*t'a-k** ars'-ə [što mon ton'  
 PROH-IMP.SG PROH-IMP.3SG.O.SG.S think-CN COMPL I you.OBL  
 mel'-gə-t šta-sajn'ə šava-n'ε-t'n'ə-n']  
 after-PROL-2SG.P wash-NPST.3PL.O.1SG.S dish-DIM-DEF.PL-GEN  
*'Don't think that I will wash the dishes after you.'*

The choice between the two patterns is based on the semantics of the complement: factive and eventive (state-of-affair) complements trigger object agreement, while non-factive propositions do not (with some exceptions), see (Serdobolskaya, Kozhemyakina 2014).

This talk is focused on the syntax of both types of complements.

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<sup>2</sup> The genitive case + subject agreement pattern is chosen if the DO is in narrow focus or in contrastive topic, see Kozlov (2017).

Hypothesis: finite SO-complements (complements that do trigger object agreement) have a DP/NP level, while S-complements do not.

NB: we only consider finite complements with subordinators (nominalizations are excluded).

### 3. Syntactic properties of finite SO- and S-complements

We consider finite SO- and S-complement clauses with three subordinators, *što* ‘that’, *koda* ‘how’ and *məz’ardə/məjardə* ‘when’, and test the criteria introduced in Dalrymple, Lødrup (2000) and Kastner (2015).

We take in consideration only transitive CTPs, since intransitive CTPs can only take S (with minor exceptions).

Table 1. Complement-taking predicates in question

complementizer	SO	S
<i>što</i>	<i>sodams</i> ‘know’, <i>azəms</i> / <i>azəndəms</i> ‘tell’, <i>šar’kəd’əms</i> ‘understand’	<i>ar’s’əms</i> / <i>dumandams</i> ‘think’, <i>mer’gəms</i> / <i>korčams</i> ‘say’, <i>šar’kəd’əms</i> ‘understand’
<i>koda</i>	<i>n’ejəms</i> ‘see’, <i>kul’əms/mar’ams</i> ‘hear’, <i>jukstams</i> ‘forget’	–
<i>məz’ardə</i> / <i>məjardə</i>	<i>učəms</i> ‘wait’, <i>kel’gəms</i> ‘love’	<i>učəms</i> ‘wait’

We shall illustrate these criteria with predicates *sodams* ‘know’ (that always triggers SO-agreement) and *ar’s’əms/dumandams* ‘think’ (that is used mostly with S-agreement).

#### 1. Coordination with non-derived nouns

According to Dalrymple, Lødrup (2000), one of the criteria for DP-layer in a complement clause is that it can be coordinated with a non-derived noun. For example, in English asserted sentential complements do not allow such coordination:

- (8) a. \*John claimed [<sub>DP</sub> responsibility] and [<sub>CP</sub> that the building collapsed].  
 b. ?John denied [<sub>DP</sub> the allegations] and [<sub>DP D</sub> that the building collapsed]. [Kastner 2015: 173]

In Moksha-Mordvin SO-complements can be coordinated with non-derived nouns:

- (9) mon pel’-an t’ε c’ora-t’ ez-də  
 I be.afraid-NPST.1SG this boy-DEF.SG.GEN in-ABL  
 son soda-si mon’ kud-əz’ə-n’  
 s/he know-NPST.3SG.O.3SG.S I.OBL house-1SG.P.SG-GEN  
 i što pozdə sa-šənd-an kud-u  
 and COMPL late come-IPFV-NPST.1SG house-LAT

*I’m afraid of this fellow. He knows where I live (lit. he knows my house) and that I come home late.*

Almost all S-complements do not exhibit this property: in this case the SO-agreement is used:

- (10) mon <sup>ok</sup>ar’s’-əsan / \*ar’s’-an t’a-kə mel’-t’ kona-n’  
 I think-NPST.3SG.O.1SG think-NPST.1SG this-ADD thought-DEF.SG which-GEN

i ton i što vas'ε ər'vejε-j maša-n' lank-s  
 and you and COMPL Vasya marry-NPST.3SG Masha-GEN on-ILL  
*I have the same thought as you and also that Vasya will marry Masha.*

The exception is the CTP *učəms* 'wait' that allows the coordination with a non-derived noun:

- (11) mon uč-an abtobus i məz'ardə t'ejə-n maks-ijt' bilet  
 I wait-NPST.1SG bus and when PRON.DAT-1SG give-NPST.3PL ticket  
 pətom zvon'-an  
 then call-NPST.1SG  
*I'm waiting for a bus and when I get a ticket, after that I'll call you.*

## 2. Pronominalization

Inanimate noun arguments can be replaced by the pronominal element *tə-n'* (this-GEN):

- (12) mon soda-sa t'ε morə-t'. –  
 I know-NPST.3SG.O.1SG.S this song-DEF.SG.GEN  
 mon-gə t'ε-n' soda-sa  
 I-ADD this-GEN know-NPST.3SG.O.1SG.S  
*I know this song. – I know it too.*

SO-complements can also be replaced with the pronominal element *tən'* (13) while S-complements are replaced with the pronominal *t'aftə* 'so' (14):

- (13) mon kunarə soda-jn'ə što vas'ε  
 I for.a.long.time know-PST.3.O.1SG.S COMPL Vasya  
 ašč-əl' t'ur'ma-sə. – də mon-gə t'ε-n' soda-sa  
 be-PQP.3SG prison-IN yes I-ADD this-GEN know-NPST.3SG.O.1SG.S  
*I have known it for a long time that Vasya had been in prison. – Yes, I know it too.*

- (14) mon ars'-an što vas'ε af pastupanda-v-i  
 I think-NPST.1SG COMPL Vasya NEG enter-PASS-NPST.3SG  
 institut-u – mon-gə t'aftə ar's'-an  
 university-LAT I-ADD so think-NPST.1SG  
*I think Vasya won't enter the university. – I think so too.*

The complement of the predicate *učəms* 'wait' can be replaced by *t'ən'* (in this case the SO-agreement is used) and also by the construction *t'ən' esə* (this-GEN in.IN):

- (15) vas'ε uč-i məz'ardə sa-jt' inžij-n'ə i mon-gə  
 Vasya wait-NPST.3SG when come-NPST.3PL guest-DEF.PL and I-ADD  
 t'ε-n' uč-sa / t'ε-n' esə uč-an  
 this-GEN wait-NPST.3SG.O.1SG.S this-GEN in.IN wait-NPST.1SG  
*Vasya is waiting for guests to come, and I'm waiting for it too.*

## 3. Anaphoric 'all'

SO-complements can be referred by the quantifier *s'embə* 'all' (in the anaphoric function) (16), cf. non-derived nouns (17).

- (16) mon soda-sa s'embə-t' što vas'ε ran'sə  
 I know-NPST.3SG.O.1SG.S all-DEF.SG COMPL Vasya before

ašč-əs' t'ur'ma-sə i što dagə sals'ə-s'  
 be-PST.3SG prison-IN and COMPL again steal-PST.3SG

*I know everything: that Vasya had been in prison and that he pilfered again after that.*

- (17) **s'embə-n'** i šaba-t'n'ə-n' i vaspitat'əl'-n'ə-n' sed'i-gə  
 all-GEN and child-DEF.PL-GEN and kindergartner-DEF.PL-GEN heart-PROL  
 toka-z'ən' t'ed'ε-n'ε-z'ə morə-s'  
 touch-PST.3PL.O.3SG.S mother-DIM-1SG.P.SG song-DEF.SG  
*The song "My mummy" has touched everyone, both children and kindergartners*  
 («Mokshen pravda», 24.03.2011, №11).

Some CTPs that usually take S-complements, allow replacement by the quantifier *s'embə*, however in this case CTP changes its meaning and takes the SO pattern. Thus, the predicate *ar's'əms/dumandams* in (18) is interpreted as 'consider':

- (19) mon ar's'-əsa **s'embə-n'** što son pastupanda-j institut-u  
 I think-NPST.3SG.O.1SG.S all-GEN COMPL s/he enter-NPST.3SG university-LAT  
 i što mu-j c'eber' rabota  
 and COMPL find-NPST.3SG good job  
*I consider all the situations, that he will enter the university and that he will find a good job.*

The CTP *učəms* 'wait' allows the replacement by the forms *s'embən'* (with SO-agreement) and *s'embən' esə* (with S-agreement):

- (20) mon {s'embə-n' uč-sa / s'embə-n' esə uč-an} məz'ardə  
 I all-GEN wait-NPST.3SG.O.1SG.S all-GEN in.IN wait-NPST.1SG when  
 acenka-t' az-saz' i učit'əl'-s' məz'ardə sa-j  
 mark-DEF.SG.GEN tell-NPST.3.O.3PL.S and teacher-DEF.SG when come-  
 NPST.3SG  
*[Context: What are you waiting for, the teacher or the mark?] I'm waiting for everything, both for the teacher to come and for the marks.*

#### 4. Extraposition with pleonastic pronouns

SO-complements allow pleonastic *t'en'* 'this' with the extraposed complement:

- (21) mon **t'ε-n'** soda-sa **što** vas'ε ingəl'ə  
 I this-GEN know-NPST.3SG.O.1SG.S COMPL Vasya before.IN  
 ašč-əs' t'ur'ma-sə  
 be-PST.3SG prison-IN  
*I know it that Vasya had been in prison.*

S-complements only allow extraposition with the form *t'aftə* 'so':

- (22) mon **t'aftə** af dumand-an **što** vas'ε pastupanda-j institut-u  
 I so NEG think-NPST.1SG COMPL Vasya enter-NPST.3SG university-LAT  
*I don't think so, that Vasya will enter the university.*

Again, the use of the form *t'en'* 'this' with S-complements triggers the semantic shift of the CTP:

- (23) mon **t'ε-n'** af dumanda-sa **što** vas'ε pastupanda-j institut-u  
 I this-GEN NEG think-NPST.3SG.O.1SG.S COMPL Vasya enter-NPST.3SG university-LAT  
*I don't consider (such a possibility) that Vasya will enter the university.*

However, the CTP *učəms* 'wait' allows pleonastic forms *t'en'* (with SO-agreement) and *t'en' esə*:

(24) *vas'ε oza-də i uč-si məz'ardə piz'am-s'*  
 Vasja sit.down-CONV.POS and wait-NPST.3SG.S.3SG.O when rain-DEF.SG  
*lotka-j i mon-gə t'ε-n' uč-san*  
 cease-NPST.3.SG and I-ADD this-GEN wait-NPST.3.O.SG.O.1SG.S  
*Vasya is sitting and waiting for the rain to stop and I'm waiting for it, too.*

(25) *mon t'ε-n' esə uč-an məz'ardə ton t'ejə-n saj-at*  
 I this-GEN in.IN wait-NPST.1SG when you PRON.DAT-1SG.P come-NPST.2SG  
*I'm waiting for that time when you come to me.*

Table 2. The syntactic properties of the complement clauses

	CO		C	
	<i>što</i>	<i>koda, məz'ardə/ məjardə</i>	<i>što</i>	<i>məz'ardə/məjardə</i>
Coordination with non-derived nouns	+	+	–	+
Pronominalization	<i>tən'</i>	<i>tən'</i>	<i>t'aftə</i>	<i>tən'/t'ən' esə</i>
Extrapolation	+ ( <i>tən'</i> )	+ ( <i>tən'</i> )	+ ( <i>t'aftə</i> )	+ ( <i>tən'/t'ən' esə</i> )
anaphoric 'all'	+	+	–	+
Examples of predicates	<i>sodams</i> 'know', <i>azəms</i> 'tell', <i>šar'kəd'əms</i> 'understand'	<i>n'ejəms</i> 'see', <i>kul'əms/mar'ams</i> 'hear', <i>jukstams</i> 'forget', <i>kel'gəms</i> 'love', <i>učəms</i> 'wait'	<i>ar's'əms / dumandams</i> 'think', <i>mər'gəms / kortams</i> 'say', <i>šar'kəd'əms</i> 'understand'	<i>učəms</i> 'wait'

#### 4. Conclusion

We have shown that the SO-complements differ from the S-complements in the following way. SO-complements can be coordinated with non-derived nouns, can be replaced with a pronominal element *tən'*, by the quantifier *s'embə* (in the cataphoric function) and allow extraposition with pleonastic anaphora. Conversely, S-complements do not exhibit these properties.

Based on this data, we argue that SO-complements are DPs/NPs, unlike S-complements.

Dalrymple, Lødrup (2000), Alsina, Mohanan, Mohanan (2005) and Kastner (2015) use the above-mentioned syntactic properties to argue for the DP/NP layer in complement clauses. Kastner (2015) also shows that the presence of DP correlates with the semantic type of the sentential complement: the sentential arguments that show the properties of DP/NP are factive (or presupposed, cf. Kastner 2015) propositions.

The similar generalization can be drawn for Moksha-Mordvin: eventive and factive complements are DPs/NPs, while non-factive propositions and irrealis complements do not have the DP/NP-layer. Thus, the DP-layer in the syntactic structure introduces the presupposition (or eventive semantics), see (Serdobolskaya, Kozhemyakina, forthcoming) for details.

The CTP *učəms* 'wait' with the complementizer *məz'ardə/məjardə* 'when' can take both agreement patterns. The choice between the two patterns is based on the semantics of the complement: when the complement clause is factive, it triggers object agreement (28), when

the complement is in non-factive it doesn't trigger the agreement (29). The similar distinction is observed in Russian, see (A. Zaliznyak 1992: 521–526).

(28) ves't' st'ir'-s' uč-əz'ə məz'ardə oft-s'  
 once girl-DEF.SG wait-PST.3SG.O3SG.S when bear-DEF.SG  
 kaja-z'ə ponaf ked'-t'  
 drop-PST.3SG.O3SG.S woolen skin-DEF.SG.GEN  
 (son salavə suvas' komnatəzənzə, salaz'ə ked't' də p'anəkudu kajaz'ə)  
*One day the girl waited until the bear took off his fell. [She secretly went into the room, stole the fell and threw it into the stove.]* (Mordvin fairytale,  
[http://podsolnushek.kazan.ru/append/app\\_1\\_2\\_6\\_2.html](http://podsolnushek.kazan.ru/append/app_1_2_6_2.html))

(29) son uč-s' / \*uč-əz'ə məz'ardə inžijnə  
 s/he wait-PST.3-SG wait-PST-3SG.S-3SG.O when guest.DEF.PL  
 sa-ŋt no s'in' is't' sa  
 come-NPST.3-PL but they NEG.PST.3PL come  
*He waited for the guests to come but they didn't.*

However, the sentential complement of *učəms* behaves differently than the other S-complements. Possible explanation: S-complement appears only when the main clause is atelic; the object in atelic clause is often expressed by the postpositional phrase with *esə*. The extraposition, pronominalisation and other tests show that the complement clause can be replaced by the construction with *esə*. Hence, S-complement of the verb 'wait' is not a (canonical) DO so it can't trigger the SO-agreement. Nevertheless it shows some properties of nominal arguments and can be interpreted as a DP/NP.

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