

## The NP/DP-structure in Moksha language<sup>1</sup>

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The aim of this paper is to present the structural analysis of nominal complex (NC) in Moksha language (Mordvin, Finno-Ugric). By NC we mean the functional category domain that encompasses a noun phrase. Moksha has rich noun morphology: definite markers, possessive markers, Number and Case. There are a lot of constraints with respect to compatibility of these categories within one word-form. Taking into consideration the DP-hypothesis (Abney 1987) and the assumptions that DP-structure is hierarchical, we propose an explanation of possible morphological encoding within the NC in terms of the projections involved. Our approach is based on the idea that nominal phrases with less structure may coexist with DPs within one language (Pereltsvaig 2006). The main questions we focus on are: (1) Do all NC have the same structure in Moksha? (2) How do different components of the Moksha nominal complex fit on the syntactic spine? Is there a D-layer in Moksha?

Moksha employs three types of declension: indefinite, definite, possessive. The possible affix combinations obey the following constraints:

- only a Nominative form can bear a plural marker in the indefinite declension;
- definite declension has only Nominative, Genitive and Dative case forms (we assume/argue that these three cases are grammatical cases in Moksha) and they all can be combined with a plural marker;
- only Nominative, Genitive and Dative case forms in contrast to locative cases can bear a plural marker in possessive declension.

Taking into consideration these constraints, we claim that the NCs in oblique and non-oblique cases must be analyzed separately.

(I) DP > PossP > NumP > NP

(II) PossP > ObIP > NP

### Argumentation

I.1. **DP:** NCs with the definite/possessive marked nouns (and only this type of NCs) have the overt grammatical case marker (cf. -n' - GEN in (1)). Only this type of NC (DPs) triggers object agreement (cf. object agreement in (1)). The D-like elements such as demonstratives *t'ε* 'this', universal quantifiers *s'embə* require the marker of definite declension on the noun (cf. (1)). These facts combined provide the empirical basis for positing a D-layer.

The word-form structure of a DP with the corresponding projections is shown in (2):

(1) *mus'k-sa* *t'ε* *ruc'ε-\*(t'-n'ə-n')*  
wash-NPST.3.O.SG.O.1SG.S this shawl-PL-DEF-GEN  
'I wash the shawls'.

(2) [ DP[ DP[ PossP[ NumP[ NP *ruc'ε*] -t'] -∅] -n'ə] -n' ]

Moksha displays a mixed behaviour with respect to Bošković's generalizations (Bošković 2008). It behaves as an NP language with respect to adjunct extraction (3) and non-exhaustivity of possessives (4).

(3) *mez'ə-n' kolga luv-it' kn'iga-t'?*  
what-GEN about read-PST.3.O.2SG.S book-DEF.SG.GEN  
'What did you read the book about?'

(4) *pet'a-n' kolma id'-ənzə kud-sə-t, a n'il'acəs' ul'ca-sə*  
Peter-GEN three children-3SG.POSS.PL house-IN-2SG.POSS and fourth.one street-IN  
lit. 'Peter's three children are at home, and the fourth (one is) outside.'

At the same time, NC with definiteness markers disallows left branch extraction, LBE (5).

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- (5) \**ravžə mon sud'ər'ε-jn'ə traks-t'*  
 black I stroke-PST.3.O.1SG.S cow-DEF.SG.GEN  
 Int.: 'I gave the black cow a pat'.

Moksha is a language with asymmetrical differential object marking. Overt marking on the DO triggers object agreement on the verb, while in case of unmarked DO the verb agrees only with the subject. Only in the latter case, is LBE possible (6).

- (6) <sup>OK</sup>*ravžə mon sud'ər'ε-n' traks*  
 black I stroke-PST.1SG cow  
 'I gave a black cow a pat'.

The correlation between definiteness of interpretation, the verbal agreement and the impossibility of LBE indicate the presence of a D-layer in these cases.

I.2. **NP**. However, not all NCs are DPs. Some NCs can bear neither number nor case markers. This is true of non-possessive marked and non-definite marked NCs in the noun modifier position. We argue that such NCs are NPs.

- (7) [*s'en'əm s'el'mə-(\*t)*]<sub>NP</sub> *s't'ər'-n'ε-s' sa-s'*  
 [blue(ADJ) eye-\*PL] girl-DIM-DEF.SG come-PST.3SG  
 'The blue eyed girl came'.

### I.3. NumP: 'unmarked' DO

The 'unmarked direct object' has to take number marker but can not take case marker and does not trigger object agreement on the verb (4).

- (8) *vas'ε s'εv-s' mar'-t(\*-ən')/\*mar'-t'n'ə-n'/\*mar'-ənzə*  
 Вася take-PST.3SG apple-PL(\*-GEN)/apple-DEF.PL-GEN/apple-3SG.POSS.PL  
 'Vasja took apples'.

I.4. **DP vs. PossP**. We suggest that DP and PossP are not the instances of the same projection. While a definite DP in Moksha can have only the wide scope reading (9), a possessive DP has both wide and narrow scope readings (10). Moreover, unlike DPs, PossPs do not obligatorily trigger object agreement on the verb.

- (9) *εr' s't'ər'-n'ε-s' s'εv-əz'ə / \*s'εv-s' mar'-t'*  
 every girl-DIM-DEF.SG take-PST.3SG.O.3SG.S/take-PST.3SG apple-DEF.SG.GEN  
 'Every girl took the apple (all the girls took one and the same particular apple)'.

- (10) *εr' s't'ər'-n'ε-s' s'εv-əz'ə/<sup>OK</sup>s'εv-s' mar'-ənc*  
 every girl-DIM-DEF.SG take-PST.3SG.O.3SG.s/take-PST.3SG apple-3SG.POSS.SG.GEN  
 1. 'Every girl took her apple (there is an individual apple for each girl)'.  
 2. 'Every girl took his apple (all the girls took one and the same someone's particular apple)'.

Moksha presents further evidence in favor of the view that in addition to DP, there are also NC corresponding to smaller nominal projections. Our analysis explains affix order and word order in the Moksha nominal complex and deals with the incompatibility of number marking with locative case marking, as well as possessive and definiteness marking.

II.1. **NumP/ObIP**. The oblique cases are in the complementary distribution with definiteness markers and the number marker (-t) (11).

- (11) *t'ε kn'iga-t'n'ə ašč-ij'-t' sumka-(\*t)-sə/sumka-sə-(\*t)*  
 this book-DEF.PL be.situated-NPST.3-PL bag-PL-IN/ bag-IN-PL  
 'These books are in bags'.

II.2. **PossP > ObIP**. In oblique cases the case marker precedes the possessive marker (12a) in contrary to grammatical cases (12b). The structures are presented in (13a-b) respectively.

- (12) a. *sumka-zə-nzə* b. *sumka-nzə-n*  
 bag-ILL-3SG.POSS bag-3SG.POSS.PL-GEN  
 'to her bag' 'her bags'

- (13) a. [<sub>PossP</sub>[<sub>ObIP</sub>[<sub>NP</sub> *sumka*]-zə]-nzə] b. [<sub>DP</sub>[<sub>PossP</sub>[<sub>NumP</sub>[<sub>NP</sub> *sumka*]-∅]-nzə]-n]

NC in oblique cases are analyzed as structures parallel to constructions with postpositions following the approach in [Simonenko, Leontjev 2012] (cf. example of prepositional phrase)

(14) *put-it' mar-n'ə-n' vas'ε-n' morkš langə-zə-nzə*  
put-3.O.IMP.PL.O.SG.S apple-DEF.PL-GEN Vasja-GEN table on-ILL-3SG.POSS  
'Put the apples on Vasja's table'.

### References

- Abney S.** 1987. The English noun phrase in its sentential aspect. Ph. D. thesis. MIT.
- Bošković, Ž.** 2008. What will you have, DP or NP? In Proceedings of NELS 37, ed. by E. Elfner and M. Walkow, 101-114. Amherst, MA: GLSA, University of Massachusetts.
- Pereltsvaig A.** 2006. Small nominals. *NLLT* 24(2).
- Simonenko A. P. & Leontjev A. P.** 2012. Morfosintaksis imennogo kompleksa [Morphosyntax of the nominal complex] // In Finno-ugorskije jazyki: fragmenty grammatičeskogo opisanija, Formalnyj i funkcionalnyj podkhody [Finno-Ugric languages: fragments of grammatical description. Formal and functional approaches], P. 259–337. Moscow: Russkije slovari.