

# Udmurt *-m* clauses as relatives and arguments: a unified analysis

DÉKANY Éva and TANCZOS Orsolya

November 4, 2016

## 1 Introduction

The Udmurt *-m* ending fulfils a variety of functions:

- it can derive deverbal nouns

(1) uža-**m**, kul-**em**  
work<sub>V</sub>-m die-m  
work<sub>N</sub>, death/dead person (Winkler 2001: 58)

- it can introduce participial clauses in argument positions

(2) Mone [gondry-len lykt-**em**-ez] kajgyriz  
I.ACC bear-GEN arrival-m-PX3SG frighten.PST.3SG  
The bear's arrival frightened me.

- it can introduce prenominal relative clauses

(3) ([])Kylem aryn [pes'atajen pukt-**em**] korka dzhuaz.  
last year.INE grandfather.INS build-m house burn.PST.3SG  
The house that was built by grandfather burned down last year.  
Or: The house that was built by grandfather last year has burned down.

- it can function as a finite past tense marker with a non-first hand evidentiality flavour (the speaker was not a witness to the action)

(4) Vös'as'kon mestazes voshtemzy övöl, pe, les'a  
holy place.ACC.PX3PL change.PX3PL NEG.AUX PRT must  
jara-**m** inmarly.  
please-EVID.3SG God-DAT  
God must have disliked their change of their holy place (Siegl 2004)

**Question:** can some or all of these uses be unified? How many *-ms* are there?

### Proposal:

- we put aside the finite past tense *-m* as a separate use;
- we argue that the same *-m* is used in argument participles and relative clause participles, and
- we suggest that the deverbal nominal suffix *-m* involves lexicalized phrases (genuine nouns that have grammaticalized from a participial verb form).

## 2 Background to Udmurt

### About the language

- Uralic, Finno-Ugric, Permian branch (its closest relative is Komi)
- geographically Udmurtia is between the Kama and Vyatka Rivers
- agglutinative SOV
- one finite verb per sentence, widespread use of non-finite subordination
- Nom-Acc language with DOM (covert Acc will be indicated in parentheses)
- articleless language

### Current situation

- minority language in the Russian Federation
- 552 299 total Udmurt ethnic population, of which 339 800 native speakers (2010 census)
- second official language of the republic
- but widespread bilingualism & intensive influence of Russian
- older generations are Udmurt-dominant, learnt Russian at school
- younger generations are balanced bilinguals or Russian-dominant
- undergoing an SOV to SVO change

### Previous research on the language

- mostly from the descriptive and typological viewpoint
- until recently FU studies have mostly been interested in reconstruction
- only recent interest in the living language
- thus only recent intensive work on syntax as opposed to morphology
- Udmurt linguists are often reluctant to give judgments and want the researcher to look at published books or journals
- we still don't know basic things about the syntax of Udmurt

### 3 A closer look at *-m* clauses

#### 3.1 The data

**Nominalizer:**

- (5) uža-m, kul-em  
work<sub>V</sub>-m die-m  
work<sub>N</sub>, death/dead person (Winkler 2001: 58)

**Argument clause:**

– subject: Gen subject & Px

- (6) Mone [gondry-len lykt-em-ez] kajgyriz  
I.ACC bear-GEN arrival-m-PX3SG frighten.PST.3SG  
The bear's arrival frightened me.

– as complement of an oblique case: Gen subject & Px<sup>1</sup>

- (7) Mon shumpoti [dyshtetis'jos-len Petyr-ez kuz'mas'ke-m-zy-ly]  
I was.happy.1SG teacher.PL-GEN Peter-ACC present.give-m-PX3PL-DAT  
I was happy that the teachers gave a present to Peter.
- (8) Mon [gondyrlen dzhog Mashajez s'ie-m-ez-les'] kurdej.  
I bear-GEN quick(ly) Masha-ACC eat-m-PX3SG-ABL frighten.PST.1SG  
The bear's quick(ly) eating Masha frightened me. (Lit. I frightened from ...)

– as complement of P: Gen subject & Px

- (9) Mon [[gondyr-len Mashajez s'ie-m-ez] bere] byz'ysa koski  
I bear-GEN Masha-ACC eat-m-PX3SG after away run.PST.3SG  
I ran away after the bear's eating Masha.

– object: Abl subject & Px

- (10) Ton adžid [gondyrjos-leš Masha-jez s'ie-m-zes]  
you see.PST.2SG bear.PL-ABL Masha-ACC eat-m-3PL.ACC  
You saw the bear's eating Masha.

The Abl on the subject recalls possessive structures: possessors are normally in the Genitive; but they must be Ablative when the possessed DP bears Accusative case (Csúcs 1998, Winkler 2001, Edygarova 2009, Assmann et al. 2014)

- (11) [so-len/\*leš anaj-ez] siče ug dišaški  
he-GEN/ABL mother-3SG such dress NEG.PRES.3  
His mother does not dress in such a way. (Edygarova 2009)

---

<sup>1</sup>Winkler (2001) lists the following as a different, gerundival use; we think that this is the same type as (8)

- (i) [više-m-en-im] ta už-ez e-j lešti  
be.ill-m-INS-1SG Dem work-ACC NV-1SG do  
Because of my illness I didn't do this work. (Winkler 2001: 79)

- (12) [so-\*len/leš eš-s-e] ažži-ško  
 he-GEN/ABL friend-3SG-ACC see-PRES.1SG  
 I see his friend. (Edygarova 2009)

So far, *-m* looks like a nominalizer. But see the prenominal relative use:

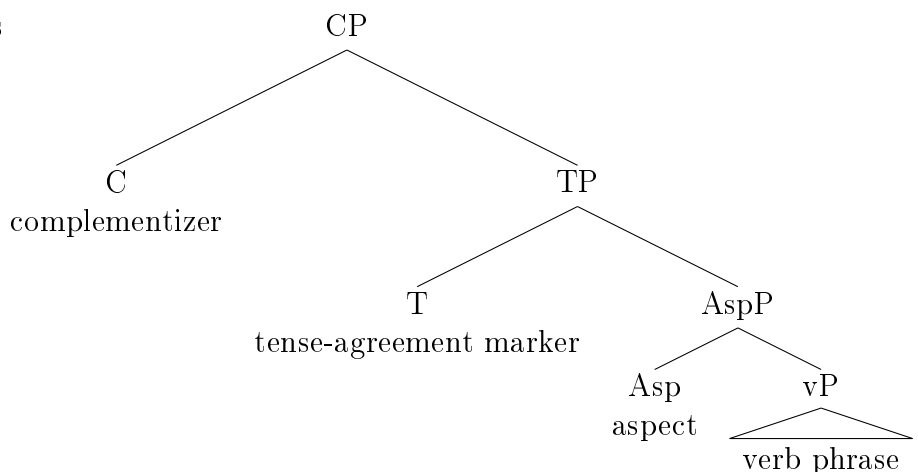
- (13) ([])Kylem aryn [pes'atajen pukt-em] korka dzhuaz.  
 last year.INE grandfather.INS build-m house burn.PST.3SG  
 The house that was built by grandfather burned down last year.  
 Or: The house that was built by grandfather last year has burned down.

**Generalization:**

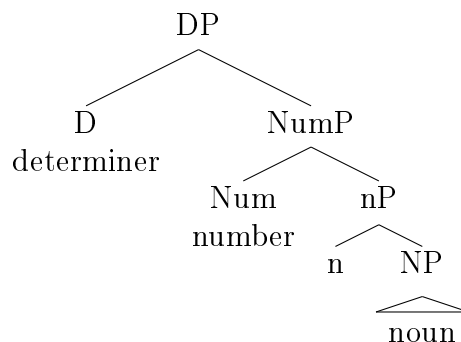
- in attributive position (i.e. as a relative) *-m* has an adjunct subject (in Instrumental case) and no Px
- in characteristic NP environments (argument position and complement of P) (modulo the Ablative subject in object position) *-m* has a Genitive subject and Px

## 4 Theoretical background

- (14) structure of clauses



- (15) structure of nominals



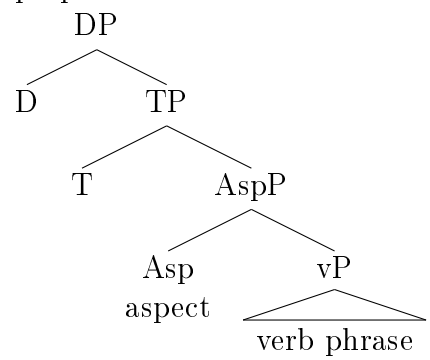
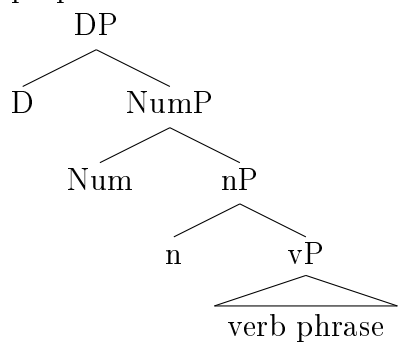
n: locus of genuine nominal properties

nominals with an event structure: mixed projections; lower projections are verbal, higher projections are nominal<sup>2</sup>. The more verbal projections are present, the fewer (and higher)

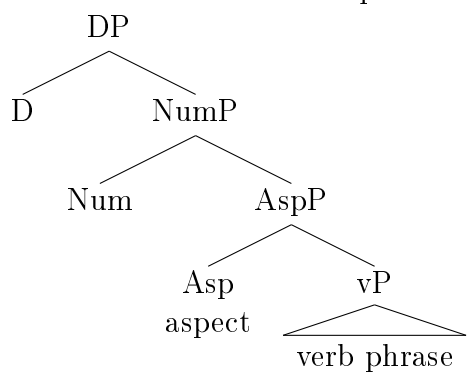
<sup>2</sup>See (Borsley & Kornfilt 2000, Alexiadou 2005, Alexiadou et al. 2011, Alexiadou 2013, Alexiadou et al. 2013, Panagiotidis & Grohmann 2009, Baker 2011).

nominal projections top them off.

- (16) nominalization with mostly nouny properties      (17) nominalization with mostly verby properties



- (18) nominalization with an equal amount of verby and nouny properties



## 5 Analysis

**Proposal:**<sup>3</sup>

- *-m* is not a true nominalizer itself (in spite of what (6) through (30) might suggest)
- *-m* spells out a verbal projection in the clause; possibly non-finite T
- accepting Cinque's 1999 hierarchy, the possibility of the adverb *last year* points to the presence of at least  $T_{past}$
- participles have semantic tense (past, present, future), though not tense suffixes, which would find a natural place in T

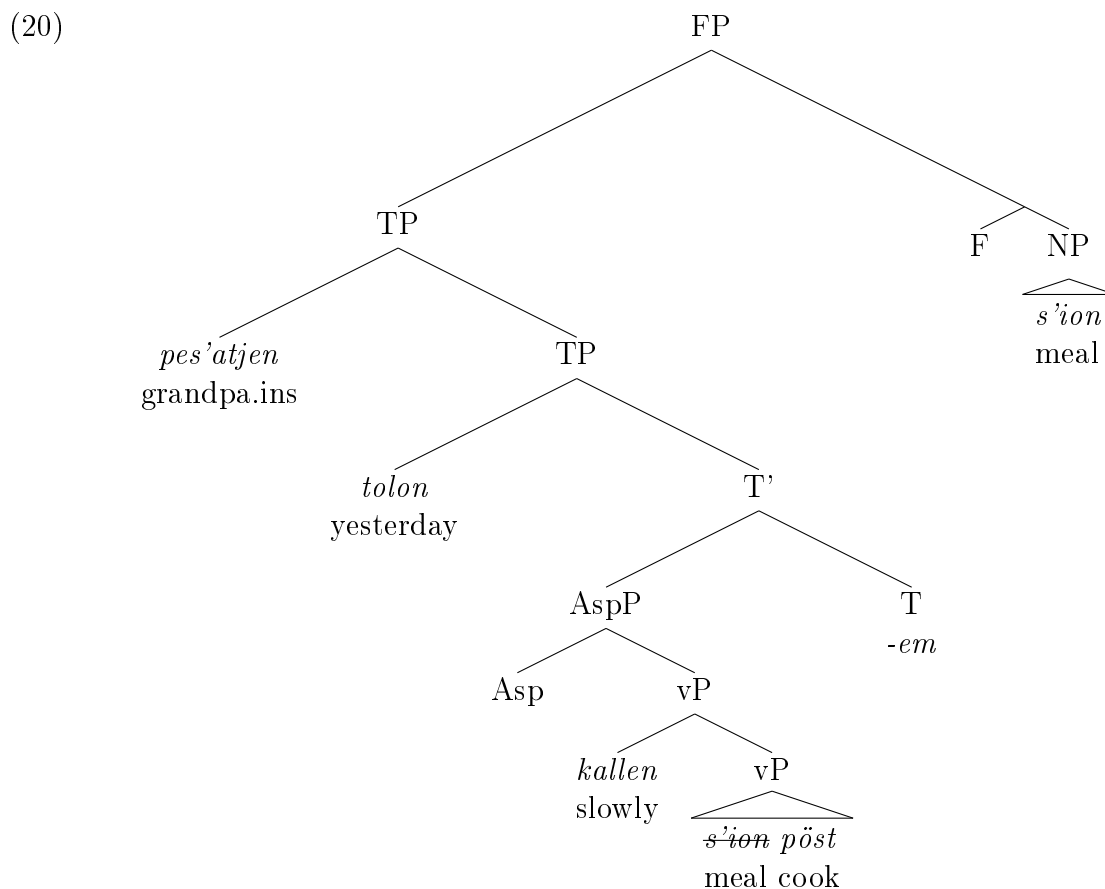
### 5.1 The relative clause use

- as a truncated clause it can function as an RC without further ado
- as the RC use shows, as a non-finite form *-m* cannot case-license its subject; the subject appears as an adjunct (we take Ins to roughly correspond to a *by*-phrase; some speakers accept Ins marking on the agent in the passive)

<sup>3</sup>This section owes a lot to Baker's (2011) analysis of Sakha.

- we take the matching approach to RCs here (see also alter); if there was an operator, it would have to move to the left edge of the RC, but we don't think they are of size CP
- as prenominal RCs never have a relative pronoun, it is possible that they are always derived via matching
- relative structure; introduced in the spec of a nominal FP

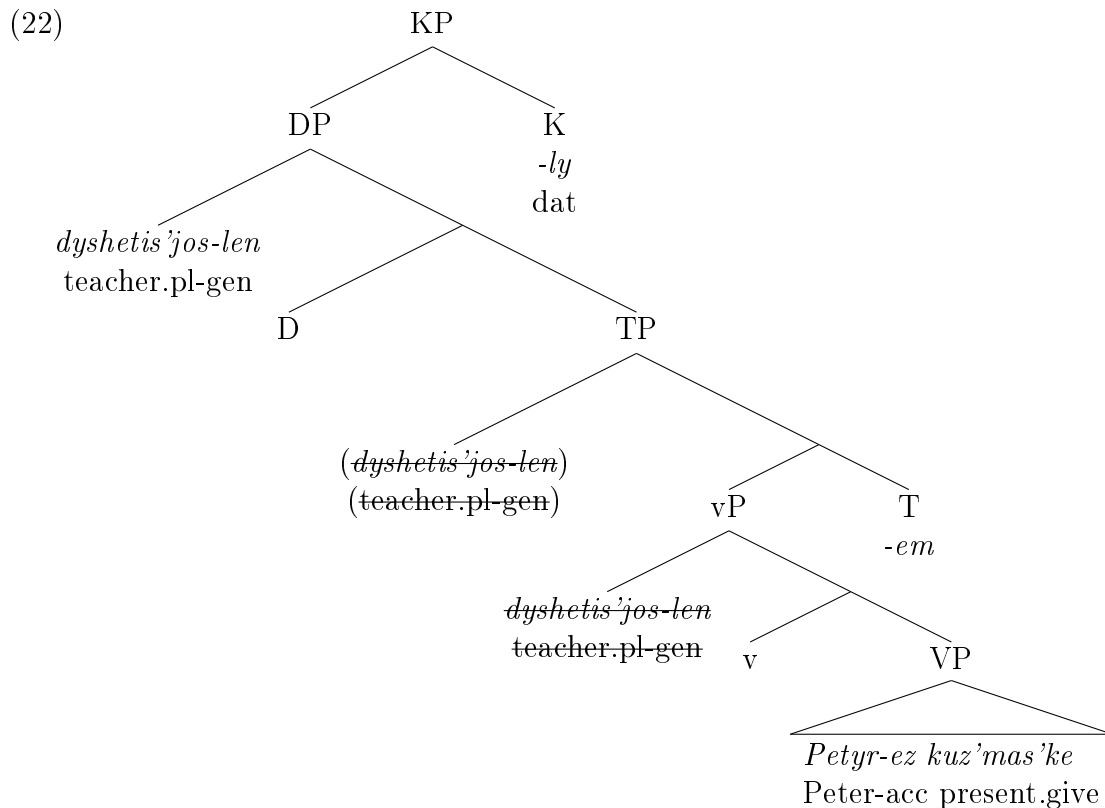
(19) Sasha [pes'atajen      tolon      kallen pöst-em] s'ion jarate  
 Sasha grandfather.INS yesterday slowly cook-m meal like  
 Sasha likes the meal that grandfather slowly cooked yesterday



## 5.2 The argument clause use

- in order to appear in nominal positions, it has to be "nominalized"
- this is done by embedding it under a nouny head, which we identify as D (recall that it's an articleless language → no real nominalizer (*n*) is present in the structure)
- D can case-license a subject with the prototypical possessive case, Genitive, so the extended vP's subject raises here
- this is a mixed-projections approach
- structure in argument position

- (21) Mon shumpoti [dyshetis'jos-len Petyr-ez  
 I was.happy.1SG teacher.PL-GEN Peter-ACC  
 kuz'mas'ke-m-zy-ly]  
 present.give-m-PX3PL-DAT  
 I was happy that the teachers gave a present to Peter.



NB: we did not represent the Px morpheme in (22). Baker (2011) argues that in Sakha the Px is on the empty D head. This would work in the above example. However, the position of Px depends on which case we are talking about. This is an issue with possessive DPs in general; we have nothing to say on this at this point.

- (23)
- a. N-Px-case: Accusative,<sup>4</sup> Genitive, Dative, Ablative (source), Caritive (without, -less), Approximative (in the direction of), Adverbial (according to)
  - b. N-case-Px: Instrumental, Inessive (in), Illative (into), Elative (starting point), Transitive (along, through), Egressive (starting point, place across which motion is continued)
  - c. free order: Terminative (aim/destination of action)

Note that in Hungarian, an article language, the possessive agreement suffix is definitely lower than (immediately below) D → some Poss node might be required bw D and T in Udmurt, too.

<sup>4</sup>According to the intuition of contemporary speakers, Px and Acc have fused together into a single portmanteau.

## 6 Further support for aspects of our proposal

Above we suggested that the structure of *-m* relatives and *-m* arguments is the same (modulo the nominal projections above TP). We've seen that *-m* relatives can accommodate adverbs (19). If we are right, that i) the structure is the same and ii) the locus of genuine nominal properties, *n*, is missing from *-m* arguments, then we expect *-m* arguments to accommodate adverbs but not adjectives. This seems to be borne out:<sup>5</sup>

- (24) Mon [gondyr-les Masha-jez dzhog s'ie-m-ze] adz'i.  
 I bear-ABL Masha-ACC quickly eat-m-PX3SG.ACC see-PST.1SG  
 I saw the bear's quickly(?) eating Masha.

The lack of a nominalizer also predicts that *-m* arguments cannot be pluralized, which again seems to be borne out.

- (25) \*[Kyshnomurt-len kes'k-em-jos-zyzly] kartež pushtytizy.  
 wife-GEN shout-m-PL-PX3SG.DAT husband.PX3SG.ACC anger.PST.3PL  
 The wife's shoutings angered the husband.

Corrections of (25) by speakers have no plural:

- (26) [Kyshnomyrt-len kes'as'k-em-ez] kartse pushtytiz.  
 wife-GEN shout-m-PX3SG husband.PX3SG.ACC anger.PST.3SG  
 Lit: The wife's shouting angered her husband.

- (27) [Kyshnoez-len kes'as'k-em-ez-ly] kartež pushtyliz  
 wife.DAT-GEN shout-m-PX3SG-DAT husband.PX3SG get.anger.PST.3SG  
 The wife's shouting made her husband angry.

We argued that *-m* cannot case-mark its subject; if the subject is present, it has to raise to spec, DP where it gets Genitive, like in a possessive structure. Recall that possessors bear Ablative if the possessed DP bears Accusative.

- (28) [so-len/\*leš anaj-ez] siče ug dišaški  
 he-GEN/ABL mother-3SG such dress NEG.PRES.3  
 His mother does not dress in such a way. (Edygarova 2009)

- (29) [so-\*len/leš eš-s-e] ažži-ško  
 he-GEN/ABL friend-3SG-ACC see-PRES.1SG  
 I see his friend. (Edygarova 2009)

*-m* clauses in object position also have Ablative on the subject; which we take to be clear evidence for subject raising to spec, DP

- (30) Ton adžid [gondyrjos-leš Masha-jez s'ie-m-zes]  
 you see.PST.2SG bear.PL-ABL Masha-ACC eat-m-3PL.ACC  
 You saw the bear's eating Masha.

---

<sup>5</sup>Note that *dzhog* means both quick and quickly, but its position after the object makes us think that it's an adverb here. Our test sentences with adjectives failed for independent reasons.



NB: one informant does not require Ablative here:

- (31) Vozhma [so-len lykt-em-ze]  
wait.PST.1SG s/he-GEN arrive-m-PX3SG.ACC  
I was waiting for his/her arriving.

We suggest that she has an alternative structure available, where *-m* can case-mark its subject, after all, hence it does not have to raise to spec, DP. Alternatively, perhaps she allows Gen on the possessor in Acc-marked possessive structures, too → to be checked

## 7 A loose end: the deverbal nominal suffix *-m*

We said that *-m* is not a nominalizer. What's going on here?

- (32) uža-m, kul-em  
work<sub>V</sub>-m die-m  
work<sub>N</sub>, death/dead person (Winkler 2001: 58)

Tentative proposal: i) these could be lexicalized forms or ii) the same *-m* as above where the base V has no argument structure and the same silent D on top. Assuming a homophonous *-m* would be last resort.

## 8 Conclusions

Udmurt *-m*: not a nominalizer, but a verbal head.

Some consequences for the label TP: If we are right that these clauses are TPs, then their use in the relative position shows that TP can happily label its own projection (pace Chomsky 2015); no feature inheritance from C(P) is necessary.

## References

- Alexiadou, Artemis. 2005. Gerund types, the present participle and patterns of derivation. In Claudia Maienborn & Angelika Wöllstein-Leisten (eds.), *Event arguments in syntax, semantics and discourse*, 139–152. Tübingen: Niemeyer.
- Alexiadou, Artemis. 2013. Nominal vs. verbal *-ing* constructions and the development of the English progressive. *English Linguistics Research* 2(2). 126–140. doi: 10.5430/elr.v2n2p126.
- Alexiadou, Artemis, Gianina Iordachioaia, Mariangeles Cano, Fabienne Martin & Florian Schäfer. 2013. The realization of external arguments in nominalizations. *Journal of Comparative Germanic Linguistics* 16(2). 73–95.
- Alexiadou, Artemis, Gianina Iordăchioaia & Florian Schäfer. 2011. Scaling the variation in Romance and Germanic nominalizations. In Harry Perridon & Petra Sleeman (eds.), *Variation and change in the Romance and Germanic noun phrase: structure, variation, and change*, 25–40. Amsterdam and Philadelphia: John Benjamins.

- Assmann, Anke, Svetlana Edygarova, Doreen Georgi, Timo Klein & Philipp Weisser. 2014. Case stacking below the surface: On the possessor case alternation in Udmurt. *The Linguistic Review* 31(3–4). 447–485.
- Baker, Mark C. 2011. Degrees of nominalization: clause-like constituents in Sakha. *Lingua* 121. 1164–1193.
- Borsley, Robert & Jaklin Kornfilt. 2000. Mixed extended projections. In Robert Borsley (ed.), *The nature and function of syntactic categories*, 101–131. New York: Academic Press.
- Chomsky, Noam. 2015. Problems of projection: extensions. In Elisa Di Domenico, Cornelia Hamann & Simona Matteini (eds.), *Structures, strategies and beyond: Studies in honour of Adriana Belletti* *Linguistik Aktuell/Linguistics Today* 223, 1–16. John Benjamins. doi:10.1075/la.223.01cho.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.
- Csúcs, Sándor. 1998. Udmurt. In Daniel Abondolo (ed.), *The Uralic languages* *Routledge language family descriptions*, 276–304. London and New York: Routledge.
- Edygarova, Svetlana. 2009. Attributive possession in Udmurt language. *Linguistica Uralica* 45. 101–118.
- Grimshaw, Jane. 1990. *Argument structure*. Cambridge, MA: MIT Press.
- Panagiotidis, Phoevos & Kleanthes K. Grohmann. 2009. Mixed projections: Categorical switches and prolific domains. *Linguistic Analysis* 35. 141–161.
- Siegl, Florian. 2004. *The 2<sup>nd</sup> past in the permic languages*: University of Tartu MA thesis.
- Winkler, Eberhard. 2001. *Udmurt Languages of the world materials* 212. Muenchen: Lincom Europa.