## Morpheme order variation in Udmurt adverbial clauses

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#### Introduction

- This talk is about a type of non-finite adverbial clauses in Udmurt (Uralic)
- These clauses are formed with the nominalization -(e)m or the deverbal noun -(o)n selected by the so-called adverbal case -ja
- Morpheme order variation: the adverbial case either precedes (1) or follows (2) the possessive agreement, which indicates the  $\phi$ -features of the subject of the adverbial clause

#### Introduction (cont.)

#### (1) Case-Poss

[Uža-n\u00e3 b\u00e3gat-\text{em-ja-s}] śud-em, pe, work-INF be.able-NMLZ-ADV-POSS.3SG feed-EVID.3SG QUOT soost\u00e3 so.

3PL.ACC 3SG

'While he was able to work, he was feeding them, they say.'

#### (2) Poss-Case

[Bigat-em-e-ja=no be.able-NMLZ-POSS.1SG-ADV=ADD vala-m-e-ja] uža-śko.

understand-NMLZ-POSS.1SG-ADV work-PRS.1SG

'I work according to my abilities and understanding.'

(Edygarova 2010: 110-111)

#### Claims

◆ These adverbial clauses fall into two types:

	Meaning	Morpheme order	Nmlz type
Type 1	temporal	Case-Poss	event
	('while')		
Type 2	oblique	Poss-Case	non-event
	('according to')		
	temporal ('while') oblique ('according to') ('based on')		

lacktriangle The term 'adverbial case' is a misnomer; these clauses are best analyzed as postpositional phrases with complex (Type 1) or simple (Type 2) internal structure; diachronic relation between the two

#### Roadmap

- 1 Background
- 2 New empirical findings
- 3 Analysis
- 4 Conclusion

Background

#### Background

- Both finite and non-finite adverbial clauses are used in Udmurt
- Non-finite adverbial clauses can be formed in two ways:
   (i) nominalization + postposition or semantic case, (ii) converb
   (Perevoshchikov 1959; Winkler 2011; Georgieva 2018)
  - (3) Vjl' už bordi kutsk-on aź-jn [...] new work to start-vn front-ine 'Before starting a new project, [...]'

Udmurt Corpus (Udmurt duńńe, 2013.06.14)

 $\leftrightarrow$  (1), (2) and (3) are PPs

- The adverbial case generally encodes adverbial modifiers, with the meaning 'according to' or 'based on', as in (4a,b):
  - (4) a. Plan-**ja** uža-j.
    plan-ADV work-PST.1SG
    'I worked according to the plan.'
    - b. Diśkut-ez-**ja** todma-j. clothes-POSS.3SG-ADV recognize-PST.1SG 'I recognized [him/her] based on his/her clothes.'

(Georgieva 2018)

Note: The adverbial case can also form adnominal modifiers; this use is considered to be a new development, particularly productive in standard Udmurt (Edygarova 2017)

- But a spatial meaning, 'along', is also possible, albeit rare (5):
  - (5) Kuar tel-**ja** košk-i-z. leaf wind-ADV leave-PST-3SG 'The leaf flew away along/with the wind.' (Edygarova 2017:78)
- This spatial meaning is attested in some frozen forms, e.g., the adverb in (6a). The temporal postposition in (6b) also contains the adverbial case.
  - (6) a. kiʻr**ja** b. diʻr**ja**field.ADV time.ADV
    'along the fields' 'during'

- Case suffixes in Udmurt generally have a fixed position: some (e.g., inessive, illative, elative) precede the possessive markers, while others (e.g., genitive, ablative, abessive) follow them, cf. (7a,b)
  - (7) a. korka-jśt-jz house-ELA-POSS.3SG 'from his/her house'
- b. korka-jez-tek house-POSS.3SG-ABE 'without his/her house'
- The adverbial case is the only one in present-day Udmurt that displays both orders, but the Poss-Case order is considered to be the general pattern (Edygarova 2010: 109–111)

- The suffix of the adverbial case -ja is formally similar to the possessive declension of the inessive and illative cases: -(j)a (9)
  - (8) a. gurt-in busi-in b. gurt-e 'in the village / field'
    - busi-je village-ine field-ine village-ill field-ill 'to the village / field'
  - (9) gurt-**a**-mi busi-**ja**-mi village-INE/ILL-POSS.1PL field-INE/ILL-POSS.1PL 'in our village / field' 'to our village / field'

New empirical findings

### Correlation between meaning and morpheme order

- The adverbial clauses in question show a correlation:
   Case-Poss & temporal ('while, as')
   Poss-Case & oblique ('according to, based on')
- Observed robustly in corpus data (Udmurt Corpus, 9.57 million words; standard Udmurt) and examples from descriptive studies (Fokos-Fuchs 1958; Edygarova 2010)

Cf. the minimal pair with -em-nominalizations in (1)–(2) as well as the one with deverbal nouns in (10)–(11)

# Correlation between meaning and morpheme order (cont.)

#### (10) Case-Poss

[Oźi min-**on-ja-z**] metro-je vu-i-z. this.way go-VN-ADV-POSS.3SG metro-ILL arrive-PST-3SG 'As he went like this, he arrived at the metro (station).'

(Winkler 2001: 53)

#### (11) Poss-Case

Mi um l'ukiśke ad'ami-jez

1PL.EXCL NEG.1PL separate.PRS.CN.PL person-ACC
vižj-jez-ja, [osk-**on-ez-ja**] [...]
root-POSS.3SG-ADV believe-VN-POSS.3SG-ADV
'We don't separate people based on their origin and religion.'

Udmurt Corpus (Udmurt duńńe, 2008.05.28)

#### Distribution of the adverbial case

 Corpus data (Udmurt Corpus, 9.57 million words; standard Udmurt)

	$\mathbf{Hits}$	Dependent type
Case-Poss	675	derived Ns
Poss-Case	16,129	derived and non-derived Ns

 $\leftrightarrow$  these findings support the earlier generalizations re: the two morpheme orders with the adverbial case (see Edygarova 2010)

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- → these findings support the earlier generalizations re: the two morpheme orders with the adverbial case (see Edygarova 2010)
  - Claim:

Case-Poss occurs with event nominalizations
Poss-Case occurs with NPs (incl. non-event nominalizations)

#### Nominalizations in Udmurt

- Two main types of nominalizations: **Event** vs. **non-event** (Georgieva 2018; see also Serdobolskaya et al. 2012 and Dékány & Georgieva 2020)
- Non-event nominalizations: result nouns, manner nominalizations (in the sense of Comrie & Thompson 2007) or object nominalizations (e.g., instrument):
  - (12) a. źećira-n swing-VN 'swinging' 'the way of swinging' '(a) swing'
- b. źećira-mswing-NMLZ'swinging''the way of swinging'

#### Nominalizations in Udmurt (cont.)

- Only non-event nominalizations can be pluralized:
  - (13) Ivan-len **śećira-m-jos-jz**Ivan-GEN swing-NMLZ-PL-POSS.3SG
    anaj-ataj-os-se pajmit-i-z.
    mother-father-PL-POSS.3SG.ACC amaze-PST-3SG
    'The ways in which Ivan was swinging amazed his parents.'
    \*'Ivan's swingings amazed his parents.' (event nominalization)
    (Georgieva 2018: 53)
- → they are garden-variety nouns

#### Types of nominalizations with the adverbial case

■ Corpus data (Udmurt Corpus):

```
V-NMLZ-PL-Case-Poss 0
V-VN-PL-Case-Poss 0
V-NMLZ-PL-Poss-Case 79
V-VN-PL-Poss-Case 511
```

→ Only Poss-Case occurs with non-event nominalizations

## Types of nominalizations with the adverbial case (cont.)

■ Speakers' judgements: Case-Poss is ungrammatical with pluralized nominalizations

```
(14) [Gureź-e (tros pol) tuba-m-ja-z /
mountain-ILL many times climb-NMLZ-ADV-POSS.3SG
*tuba-m-jos-ja-z] al'pińist odig
climb-NMLZ-PL-ADV-POSS.3SG mountain.climber one
pol=no usj-mte.
time=ADD fall-NEG.EVID.3SG
'The mountain climber didn't fall a single time while climbing
the mountains (many times).' (elicited)
```

→ Case-Poss occurs only with event nominalizations

#### Interim summary

The so-called adverbial case(s) in Udmurt:

Meaning	Morpheme order	Dependent type
(spatio)temporal	Case-Poss	event nmlz-s
		(marginally NPs)
oblique	Poss-Case	NPs
		including
		non-event nmlz-s

#### Interim summary

The so-called adverbial case(s) in Udmurt:

	Meaning	Morpheme order	Dependent type
ADV-1	(spatio)temporal	Case-Poss	event nmlz-s
			(marginally NPs)
ADV-2	oblique	Poss-Case	NPs
			including
			non-event nmlz-s

Analysis

The adverbial case indeed shows morpheme order variation (=traditional grammars)

But: theoretically undesirable & empirically not well-founded (cf. previous slide)

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- 2 No variation: ADV-1 vs. ADV-2
  - 1 ADV-1 and ADV-2 are unrelated to each other, albeit form-identical In Georgieva (2018), I argued that ADV-1 is simply the inessive/illative used before possessive morphemes (see below).

- 1 The adverbial case indeed shows morpheme order variation (=traditional grammars)
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  - 1 ADV-1 and ADV-2 are unrelated to each other, albeit form-identical In Georgieva (2018), I argued that ADV-1 is simply the inessive/illative used before possessive morphemes (see below).
  - 2 ADV-1 and ADV-2 are related to each other

Given that ADV-2 in adverbial clauses matches the general use of the adverbial case (cf. (4)), it is ADV-1 that "stands out".

Q1 What is ADV-1 then?

Q2 How are ADV-1 and ADV-2 related?

#### Proposal in a nutshell

#### In Georgieva (to appear), I argue that

■ What traditional grammars have labelled as the 'adverbial case' in Udmurt covers **two types of postpositional phrases**:

(15) a. 
$$[K_{LOCP} - a [N_{PLACEP} - j []]]$$
 ADV-1 b.  $[PP - ja []]$  ADV-2

■ There is a diachronic relation: ADV-1 > ADV-2, i.e., the complex P was reanalyzed as a simple P

### Theoretical assumptions

 Spatial PPs can have complex internal structure: path- and place-denoting Ps, AxPartP

```
(16) [PlaceP in [AxPartP front [ of the car ]]]
```

(Jackendoff 1983; van Riemsdijk & Huybregts 2002; Svenonius 2006; Asbury et al. 2008; Cinque & Rizzi 2010, a.o.)

## Theoretical assumptions (cont.)

■ Ps can be adpositions or semantic cases:

```
(17) a. in the house
b. a ház-ban [Hungarian]
the house-INE
```

(Moravcsik 2009; Malchukov & Spencer 2009b; Asburry 2008; Dékány 2012; Dékány & Hegedűs 2021, a.o.)

## Theoretical assumptions (cont.)

- Diachronic changes in the PP domain:
  - (i) grammaticalization, (ii) morphologization

(Waters 2009; Hegedűs 2014; Kittilä et al. 2022, a.o.)

■ Ps often grammaticalize from nominal elements:

(18) nominal 
$$> AxPart^0 (> Place^0/Path^0)$$

In Hungarian, Ps like *alatt* 'under', *előtt* 'in front', etc., historically go back to relational nouns that filled  $AxPart^0$ .

■ A syntactically independent P may turn into a morphologically bound one (=case marker)

#### PPs in Udmurt

■ Two types of PPs: complex and simple (Usacheva 2012; Simonenko & Leontyev 2012; Winkler 2011)

```
(19) a. [K_{LOC}P [N_{PLACE}P []]]
b. [PP []]
```

complex PP simple PP (Usacheva 2012)

## PPs in Udmurt (cont.)

 $\blacksquare$  Complex PPs feature an  $\mathbf{N_{PLACE}P}$  and  $\mathbf{K_{LOC}P}$  (Usacheva 2012)

```
(20) korka vil-jn / vil-e / vil-jś
house top-INE top-ILL top-ELA
'on top / onto the top / from the top of the house'
```

- N<sub>PLACE</sub>: locates Figure wrt Ground; relational noun (NB: can be morphologically bound!) (=AxPart)
- K<sub>LOC</sub>: expresses motion or location; spatial cases (=Path/Place)

## PPs in Udmurt (cont.)

- $\blacksquare$  Agreement in complex PPs: possessive markers can follow  $K_{\rm LOC}$ 
  - (21) korka vil-a-d house top-INE/ILL-POSS.2SG 'on top of your house (lit. on your top of house)'
  - (22)  $[PossP \ d \ [K_{LOC}P \ a \ [N_{PLACE}P \ vil \ [\ ]]]]$
- This essentially results into Case-Poss order

#### Analysis

- ADV-1 (-ja): spatiotemporal; Case-Poss; formally similar to the inessive/illative used before possessives (-(j)a)
- $\rightarrow$  ADV-1 = INE/ILL (Georgieva 2018)
  - But: presence of a glide the adverbial case can be used without possessives, unlike INE/ILL ADV-1 is *not* semantically equivalent to 'in' (23)
    - (23) telja kirja wind.ADV field.ADV 'along/with the wind, along the fields'

■ Proposal: ADV-1 contains the INE/ILL in a complex PP

(24) 
$$\left[_{\text{K}_{\text{LOC}}\text{P}} \ a \left[_{\text{N}_{\text{PLACE}}\text{P}} \ j \left[ \ \right] \right] \right]$$

Traditional approaches: the adverbial goes back to lative/prolative -j and lative -a (Rédei 1988)

- Prediction of (24): possessive agreement will be marked on top of the PP, as in complex PPs in general
- → Case-Poss morpheme order
  - This prediction is borne out: cf. the temporal clauses in (1), (10), (14)

- The contribution of the N<sub>PLACE</sub> head *-j*: spatial 'along' (cf. (24)) and its temporal equivalent 'as long as' in the adverbial clauses in question (cf. (1), (10), (14))
- Unlike other  $N_{PLACE}$  heads, -j does not combine with other semantic cases
  - $\rightarrow$  a "frozen" form, analyzed by the traditional grammars as the 'adverbial case' (in my terms, ADV-1)

- ADV-1 has very limited use in present-day Udmurt: it occurs only with non-finite adverbial clauses
- ADV-2 is the productive one: a simple P

$$(25)~[\mathrm{PP}~ja~[~]]$$

- selects for NPs due to its semantics ('according to' or 'based on')
- only Poss-Case order is possible, as with simple PPs in general

- $\blacksquare$  ADV-1 > ADV-2
  - structural simplification: complex P to simple P
  - semantic change: spatiotemporal > oblique
    - (26) in (the time of) my thinking > in my opinion
    - (27) I recognized him while he was walking > I recognized him based on the way he was walking

Note: Traditional approaches assume a similar split for the Proto-Uralic locative, whose allomorphs gave rise to the inessive and instrumental cases in Udmurt (Serebrennikov 1963; Bartens 2000)

Conclusion

#### Conclusion

- In this talk I showed that the non-finite clauses with the so-called adverbial case in Udmurt fall into two types
- The analysis proposed captures the differences between these types by postulating two different PP structures
- The two PPs (aka two adverbial cases) were argued to be diachronically related
- More on this in Georgieva (to appear); this paper also discuss another type of non-finite adverbial clauses in Udmurt, which show a puzzling requirement for a spatiotemporal match with the matrix event ⊕

#### Thank you for your attention!

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