

# Kazym Khanty non-finite forms: Multifunctionality and variability in the amount of structure

Daria Bikina<sup>1,2</sup> (dbikina@g.harvard.edu);  
Denis Rakhman<sup>1</sup> (drahman2@mail.ru);  
Aleksy Starchenko<sup>1</sup> (aleksey-starchenko@mail.ru);  
Svetlana Toldova<sup>1</sup> ([toldova@yandex.ru](mailto:toldova@yandex.ru))  
Vsevolod Potseluev

## 0. Introduction

Language info:

- Khanty > Ob-Ugric > Uralic
- data: fieldwork in 2018-2020, mostly elicitation
- SOV, head-final

The two non-finite forms: *-ti* (nfin.npst) and *-əm* (nfin.pst) are handling almost all subordination. In her study of the Obdorsk dialect of Khanty, Nikolaeva (1999) distinguishes between Infinitive on *-ti* and two participles on *-ti* and on *-əm* that differ in time reference (non-past and past, correspondingly).

Infinitive can occur in same-subject purpose clauses (1) and as complements of several verbs and experiential adjectives (2):

### INFINITIVAL PURPOSE CLAUSES

(1) *vasa-jen*      *woš-a*      *man-s*      *motor*      *lət-ti*  
Vasya-POSS.2SG    city-LOC    go-PST[3SG]    engine    buy-NFIN.NPST  
'Vasya went to the city to buy a boat engine'.

### INFINITIVAL SENTENTIAL COMPLEMENTS

(2) *wašaj-en<sup>2</sup>*      *ńań*    *łe-ti*      *wuli-s*  
Vasya-POSS.2SG    bread eat-NFIN.NPST    stop-PST[3SG]  
'Vasya stopped eating bread'.

Participles form complement clauses, adverbial clauses, and relative clauses.

### PARTICIPIAL SENTENTIAL COMPLEMENTS

(3) *łw*    *włi*    *katəl-ti*      *wer-ł*      *ma*    *wə-ł-em*  
s/he deer catch-NFIN.NPST    deed-POSS.3    I    know-NPST-1SG.SG

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<sup>1</sup> Higher School of Economics; <sup>2</sup> Harvard University

<sup>2</sup> The second possessive on proper nouns is a discourse marker. The use of possessive affixes in non-possessive contexts is typical for Uralic, see (Nikolaeva 2003; Simonenko 2014; Mikhaylov 2020) among others.

‘I know that he is catching a deer’.<sup>3</sup>

#### PARTICIPIAL ADVERBIAL CLAUSES

(4) *muj rəpata tāj-t-ew-ən* *χot-eł* *mir-ew* *jəm-a*  
we job have-nfin.npst-poss.1pl-loc house-poss.3 people-poss.1pl good-dat  
*tāj-t-ət-ew*  
have-NPST-O-1PL

‘When we have a job, people in our house live well’.

#### RELATIVE CLAUSES

(5) *ma aś-em* *ari-ti* *ar katra*  
I father-POSS.1SG sing-NFIN.NPST song ancient

a. ‘The song that my father is singing is old’.

b. ‘The song that my father will sing is old’.

(6) *mulχatl arij-əm* *ewi aškolaj-ən rəpit-l*  
yesterday sing-NFIN.PST girl school-LOC work-NPST[3SG]

‘The girl who was singing yesterday works at school’.

**We claim that all the variety of Khanty non-finite clauses can be systematized in another way than it is done in existing grammatical descriptions and works on non-finite clauses in Khanty (Nikolaeva 1999; Koškareva 2001, 2006; Kovgan 2007; Kaksin 2010). We are going to group non-finite constructions basing on their morphosyntactic properties.**

### 1. Subject expression and agreement

The basis of our classification is the way non-finite constructions express their subject and show agreement with it. Besides control clauses (infinitival clauses in Nikolaeva’s terms), all other constructions allow for the overt expression of a subject marked with nominative case. There are three subject agreement patterns in non-finite clauses. No object agreement is ever possible.

- Pattern 1: no agreement

(7) *ma aś-em* *par-s-em* *rat* *χar* *ət-ti*  
I father-POSS.1SG ask-PST-1SG.SG fireplace place set.on.fire-NFIN.NPST

‘I asked my father to make a bonfire’.

- Pattern 2: possessive markers on an extracausal element:
  - on the head noun:

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<sup>3</sup> The *wər*-construction can be analyzed as relativization of the factive argument in terms of (Davidson 1967; Parsons 1990). See (Bikina, Starchenko 2019) for analysis.

(8) *lɥw lɥŋt-ti kinškaj-el*  
 s/he read-NFIN.NPST book-POSS.3  
 ‘the book she is reading’

- o on the “auxiliary” (semantically vacuous) head noun:

(9) = (3) *lɥw wɥli katət-ti wɛr-t ma wə-t-ɛm*  
 s/he deer catch-NFIN.NPST deed-POSS.3 I know-NPST-1SG.SG  
 ‘I know that he is catching a deer’.

(10) *pet’a-jen nāŋti lawəλ-ti mār-aλ mašaj-en lant jɥŋk*  
 Petya-POSS.2SG you.ACC wait-NFIN.NPST time-POSS.3 Masha-POSS.2SG flour water  
*kawərt-əs*  
 cook-PST[3SG]

‘While Petya was waiting for you, Masha cooked a soup’.

- Pattern 3: possessive marker on the (non-finite) verb:

(11) *ma jɛm-a ul-t-ɛm pāta aŋk-ɛm amp-ət*  
 I sacredness-DAT sleep-NFIN.NPST-POSS.1SG for mother-POSS.1SG dog-POSS.3  
*jira wošt-s-ət-lɛ*  
 away chase-PST-3SG-O

‘My mother chased away the dog in order for me to sleep well’.

These options are not universally acceptable for all non-finite constructions.

	No agreement	Extraclausal possessive agreement	Possessive agreement on the verb
Infinitives	ok	-	*
Relative clauses	Non-pronominal subjects only (including pro-drop) <sup>4</sup>	ok (head noun)	*
Participial sentential complements	Non-pronominal subjects only (including pro-drop)	ok ( <i>wɛr</i> ‘deed’)	*
Sentential different-subject complements	Non-pronominal subjects only (excluding pro-drop)	-	ok
Participial adverbial clauses	Non-pronominal subjects only (excluding pro-drop)	Depends on the postposition <i>mār, mār-n, purajən</i> ‘when’ Probably others	<i>pāta</i> ‘in order to’, <i>-n</i> (locative case, expresses simultaneity),

<sup>4</sup> This is the pattern represented in possessive noun phrases in Kazym Khanty: pronominal subject require obligatory possessive agreement, non-pronominal subjects show optional agreement.

			<i>олаһән</i> (about) and others	
		ok	*	

Unlike infinitival clauses, participial ones seem to be highly diverse both in form and function. We thus suppose that this classification can be replaced by a more exact one. We do not use terms Infinitive and Participle but consider the only distinction between non-past and past non-finite forms (which is reflected in our glosses). We claim further that the uses of non-finite forms can be classified basing on their morphosyntactic peculiarities rather than on the contexts they occur in. We are going to reduce the multifunctionality of Khanty non-finite forms to the following three morphosyntactic classes:

<b>Bare (non-agreeing) non-finites</b>
<b>Non-finite forms bearing agreement on themselves (Verb-agreement non-finites)</b>
<b>Constructions with non-finite forms with agreement on the nominal head (Head noun-agreement non-finites)</b>

We are going further to discuss other morphosyntactic parameters that contribute to our claim.

## 2. Interaction with argument alternations

Khanty exhibits a morpheme *-a/-i-* that has been traditionally described as passive (see Nikolaeva 1999): although it follows tense, it promotes object to subject position. The demoted subject bears locative case.

- (12) a. *pet'aj-en χηw jem-əη χatł ławł-əs*  
 Peter-2SG long sacredness-PROP day wait-PST[3SG]  
 b. *jem-əη χatł pet'aj-en-ən χηw ławł-s-a*  
 sacredness-PROP day Peter-2SG-LOC long wait-PST-PASS  
 'Peter has been waiting long for the holiday'.

Non-finite forms are voice-neutral; the only difference between active and passive non-finite forms is the encoding of the Agent (nominative vs. locative, correspondingly). Most syntactic and morphosyntactic types of non-finite clauses allow for passivization, including relativization (13), relativization-like sentential complements (14), adjuncts (15) with agreement on the nominal head, as well as sentential complements (16) and adjuncts (17) with agreement on the non-finite form:

- (13) a. *śas'-em łət-əm pāsən nuχ məη-s-em*  
 grandmother-POSS.1SG buy-NFIN.PST table up wipe-PST-1SG.SG

- b. *śas'-em-ən*                      *lēt-əm*                      *păsan nuχ məŋ-s-em*  
 grandmother-POSS.1SG-LOC    buy-NFIN.PST    table    up    wipe-PST-1SG.SG  
 ‘I wiped the table bought by my grandmother’.
- (14) *ləxs-em-ən*                      *kinška wuj-t'-əm*                      *wer wə-t-em*  
 friend-POSS.1SG-LOC    book    take-FREQ-NFIN.PST    deed    know-NPST-1SG.SG  
 ‘I know that my friend has taken the book (lit. that the book has been taken by my friend)’.
- (15) *năŋ petr-en-ən*                      *lawəl-əm*                      *măr-en-ən*                      *mašaj-en*  
 you    Peter-POSS.2SG-LOC    wait-NFIN.PST    time-POSS.2SG-LOC    Masha-POSS.2SG  
*lant jink kawərt-əs*  
 flour    water    cook-PST[3SG.SG]  
 ‘While Peter was waiting for you, Masha cooked soup’.
- (16) *ma aś-em*                      *əχəl*                      *wer-t-ał*                      *nəm-t-em*  
 I    father-POSS.1SG    sledge    do-NFIN.NPST-3    remember-NPST-1SG.SG  
 ‘I remember that my father is doing a sledge’.<sup>5</sup>
- (17) *mašaj-en*                      *pet'aj-en-ən*                      *än wox-m-ał*                      *păta*  
 Masha-POSS.2SG    Petya-POSS.2SG-LOC    NEG call.for-PTCP.PST-POSS.3SG    for  
*λ#w jaməŋ xatλ-a*                      *än juχt-əs*  
 (s)he holy    day-DAT    NEG come-PST[3SG]  
 ‘Because of Petya's not inviting Masha, she didn't come to the holiday’.

In case of non-argument relativization, however, passivization is not possible:

- (18) a. *aŋk-em*                      *χwł haxəs-ti*                      *kəsi păsən-ən uł*  
 mother-POSS.1SG    fish peel-NFIN.NPST    knife table-LOC    sleep.NPST[3SG]  
 b. *\*aŋk-em-ən*                      *χwł haxəs-ti*                      *kəsi păsən-ən uł*  
 mother-POSS.1SG-LOC    fish peel-NFIN.NPST    knife table-LOC    sleep.NPST[3SG]  
 ‘The knife my mother skins fish with is on the table’.

As well as in case of bare non-finites:

- (19) a. *\*Vas'a*                      *läŋxa-λ*                      *maša-jen-ən*                      *äpəłt-ti*  
 Vasya                      want-PRS[3SG]                      Masha-POSS.2SG-LOC    hug-NFIN.NPST  
 ‘Vasya wants to be hugged by Masha.’

Thus, the ability to form passive distinguishes non-argument relativization and bare non-finites from other types of non-finite forms.

### 3. Island effects

Some of the constructions discussed above are syntactically islands, some are not.

<sup>5</sup> Example courtesy of Vsevolod Potseluev.

INFINITIVAL SENTENTIAL COMPLEMENTS – NOT ISLANDS

(20) *kat'aj-en numəs wer-əs wən χot lət-ti*  
 Kate-POSS.2SG decision do-PST[3SG] big house buy-NFIN.NPST  
 ‘Kate decided to buy a big house’.

(21) *mujšər χot kat'aj-en numəs wer-s lət-ti?*  
 which house Kate-POSS.2SG decision do-PST[3SG] buy-NFIN.NPST  
 ‘What house did Kate decide to buy?’<sup>6</sup>

ADVERBIAL PARTICIPIAL CLAUSES – ISLANDS?

(22) *ma ul-əm mār-εm-ən pet'aj-en ow-εm-a*  
 I sleep-NFIN.PST time-POSS.1SG-LOC Peter-POSS.2SG door-POSS.1SG-DAT  
*seŋk-əs*  
 knock-PST[3SG]  
 ‘While I was sleeping, Peter knocked on the door’.

(23) *χuj pet'aj-en ul-əm mār-al-ən ow-a seŋk-əs?*  
 who Peter-POSS.2SG sleep-NFIN.PST time-POSS.3-LOC door-DAT knock-PST[3SG]  
 ‘Who Peter knocked on the door, while ~~who~~ was sleeping?’

PARTICIPIAL SENTENTIAL COMPLEMENTS – ISLANDS?

(24) *χuj nəŋ lət-əm wer-en nəm-l-en?*  
 what you buy-NFIN.PST deed-POSS.2SG remember-NPST-2SG.SG  
 ‘What do you remember that you bought?’

PURPOSE CLAUSES – ISLANDS

(25) *ma χop lət-ti pāta woš-a jāŋχ-s-əm*  
 I boat buy-NFIN.NPST for city-DAT go-PST-1SG  
 ‘I went to the city to buy a boat’.

(26) *\*muj nəŋ lət-ti pāta woš-a jāŋχ-s-ən?*  
 what you buy-NFIN.NPST for city-DAT go-PST-2SG  
 Intended reading: ‘What did you go to the town to buy ~~what~~?’

RELATIVE CLAUSES – ISLANDS

(27) *kol'aj-en mərχ wənś-ti ewi šiwal-əs*  
 Kolya-POSS.2SG cloudberry pick-NFIN.NPST girl see-PST[3SG]  
 ‘Kolya saw a girl who was picking cloudberry’.

(28) *\*muj kol'aj-en wənś-ti ewi šiwal-əs?*  
 what Kolya-POSS.2SG pick-NFIN.NPST girl see-PST[3SG]  
 Intended reading: ‘What did Kolya see the girl who was picking ~~what~~?’

Island effects show the difference between bare (infinitival) and agreeing (participial) non-finite clauses.

Bare non-finite forms	Not islands
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<sup>6</sup> Example courtesy of Polina Kasjanova.

<b>Head noun-agreement non-finite forms</b>	<b>Relative clauses – strong islands, other constructions – weak islands</b>
<b>Verb-agreement non-finite forms</b>	<b>Islands</b>

#### 4. Adverbial modification

The constructions in question also differ with respect to compatibility with different adverbs, which argues for the difference in the amount of functional structure they involve (Cinque 1999).

Verb-agreement non-finite clauses allow for high epistemic adverbs:

- (29) *ma wašaj-en jina juxt-t-ał χətt-əs-em*  
 I Vasya-POSS.2SG indeed come-NFIN.NPST-POSS.3 hear-PST-1SG.SG  
 ‘I heard that Vasya is indeed coming’.

Head noun agreement non-finites, unlike in previous cases, do not group together with this respect:

Sentential arguments and adverbial clauses of this type do not allow for epistemic adverbs (29) but are still compatible with most tense-related modifiers (30):

- (30) *\*ši neŋ-en náwr-emjina təmət-t-əm wər ma wə-s-em*  
 EMPH woman-POSS.2SG child indeed put.on-TR-NFIN.PST deed I know-PST-3SG.SG  
 Intended reading: ‘I knew that this woman has indeed already dressed her baby’.
- (31) *wašaj-en jəχət tərəmlor-a jəŋχ-əm wər-t ma wə-t-em*  
 Vasya-POSS.2SG later Numto-DAT go-NFIN.PST deed-POSS.3 I know-NPST-3SG.SG  
 ‘I know that later Vasya visited Numto’.

Relative clauses are ungrammatical with tense-related adverbs (31) but allow for agent-modifying (32) and manner (33) adverbs:

- (32) *\*ma jəχət mǎn-əm lapkaj-em*  
 I later go-NFIN.PST shop-POSS.1SG  
 Intended reading: ‘the shop I went later to’
- (33) *aps-em-ən neman šukat-əm an*  
 younger.brother-POSS.1SG-LOC intentionally break-NFIN.PST cup  
 ‘the cup that my younger brother intentionally broke’
- (34) *jəm-a arij-əm ewi*  
 sacredness-DAT sing-NFIN.PST girl  
 ‘the girl who sang well’

Bare non-finite for are not compatible are not compatible with temporal adverbs (34). Neither can they be modified with agent-oriented adverbs (35).

- (35) *\*pet’aj-en ləŋχ-ał jəšawət woš-a mǎn-ti*  
 Petya-POSS.2SG want-NPST[3SG] soon city-DAT go-NFIN.NPST  
 Intended reading: ‘Peter wants to go to the city soon’.

- (36) \**ħw tǎj-ł*                      *neman*                      *χop šukat-ti*  
 s/he have-NPST[3SG] intentionally boat break-NFIN.NPST  
 Intended reading: ‘He can intentionally break the boat’.

		Epistemic adverbs	Temporal adverbs	Aspectual adverbs
Verb agreement		Ok	Ok	Ok
Head noun agreement	Sentential arguments and adverbial clauses ( <i>wɛr</i> -clauses)	*	Ok	Ok
	Relative clauses	*	*	Ok
Bare non-finites		*	*	*

## 5. Results

		Highest adverbs	Island effects	Passive voice	Overt subject
Verb agreement		CP	Strong	ok	ok
Head noun agreement	Sentential arguments and adverbial clauses ( <i>wɛr</i> -clauses)	TP	Weak	ok	ok
	Relative clauses	AspP	Strong	Argument relativisation only	ok
Bare non-finites		VP	No island effects	*	*

- Bare non-finites are indeed the most distinct class of Kazym Khanty non-finites.
- Amount of verbal structure according to the adverb test: Verb agreement clauses > non-relative head noun agreement clauses > relative head noun agreement clauses > bare non-finites



- Infinitival sentential complements are not islands, while infinitives under postpositional and nominal heads are

## 6. Discussion

Adyghe, Caponigro and Polinsky (2011):

- DP complements
- TP complements
- no CP complements; CP relativisation
- Adverbial clauses and CP sentential complements constructed as “auxiliary” nouns modified by relative clauses or just headless relative clauses:

ADYGHE

(37) [DP [CP č'ale-r qə-zə-re-kwəž'ə-š'tə] [NP qeba-r]] ə-gwəreɸ  
 boy-ABS INC-REL.OBL-APPL-return-FUT-ABS news-ABS 3SG.ERG-understood  
 ‘She understood that the boy will arrive’ [Caponigro, Polinsky 2011: 106]

cf. Kazym Khanty:

(38) = (9) = (3) *ħw wuli katəl-ti wər-t ma wə-t-em*  
 s/he deer catch-NFIN.NPST deed-POSS.3 I know-NPST-1SG.SG  
 ‘I know that he is catching a deer’.

	Adyghe (Caponigro, Polinsky 2011)	Kazym Khanty
DP complements	ok	ok
Overt non-relative complementizers	*	*
Genuine clausal CP complements	*	*
TP complements	ok	*
Relative clauses	CP	TP
TP complementation “rescue strategy”	--	TP relativizing “auxiliary” head nouns (always overt)
Null head nouns	ok	*
CP complementation “rescue strategy”	CP relativizing “auxiliary” head nouns (possibly null)	CP obtaining nominal features

Proposal:

Khanty lacks both CP relativization and overt complementizers

- use TP relativization in Adyghe-like way
- or give nominal features to CP

Verb-agreeing CP clauses as nominals:

- postposition complements (11)
- capable of bearing case (4)
- possessive markers (11)
- triggering object agreement on the matrix verb

*ma aś-em                      øχəλ      wɛr-t-aλ                      wə-λ-em*  
me father-poss.1sg sledge do-nfin.npst-poss.3sg know-pst-1sg.sg  
'I know that my father is making a sledge.'

- although this agreement cannot be plural

*[a iki rat-en                      χəɾət-m-aλ]*  
little man fireplace-POSS.2SG douse-NFIN.PST-3SG  
*pa [aśem                      ar ari-m-aλ]                      ma wə-λ-em/\*-lam*  
ADD father-POSS.1SG song sing-NFIN.PST-POSS.3SG I know-NPST-1SG.SG/\*1SG.PL  
'Я знаю, что мальчик потушил костер и мой отец спел песню'

Hypothesis: DP – (PossP) – CP structure (see Alexiadou 2001 for Greek and Turkish nominalized clauses)

- (1) *to oti irthe*  
'the that he came'
- (2) Ben [siz                      tatil-e                      çik-acag-iniz-i]  
I you-GEN vacation-dat go-out-FACT.FUT-2PL-ACC  
*duy-du-m*  
hear-PAST-1SG  
'I heard that you will leave for vacation'

## List of abbreviations

1, 2, 3 – person, ABS – absolutive, ACC - accusative, APPL – applicative, DAT– dative, EMPH – emphatic particle, ERG – ergative, FREQ – frequentative, FUT – future, INC – incorporation, LOC – locative, NFIN – non-finite form (participle), NPST – non-past, O – object agreement marker, OBL – oblique marker, PASS– passive, PL– plural, PST – past, REL – relativizer, SG – singular, TR– transitivity marker

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## Appendix: mirative clauses

- Independent usage of verb-agreement non-finites

(39) *aś-em jɨχ sɛwər-t-at*  
father-POSS.1SG wood chop-NFIN.NPST-POSS.3  
'It turns out that my father is chopping wood'.

- no agreementless usages attested
  - besides passive voice cases:

(39) *rəpata jox-t-an-ən χot oməs-ti*  
work people-PL-POSS.2SG-LOC house build-NFIN.NPST

'It turns out that is being built by laborers'

(Golosov, p.c.)

cf.

ENGLISH

(40) *That I should live to see such ingratitude!*

(Quirk et al. 1985)

GERMAN

(41) *Daß du immer noch Witze mach-en kann-st*

That you still still jokes do-INF can-2SG  
'That you can still make jokes about it!'

(Buscha 1976)

Hypothesis: insubordination and reanalysis as a main clause structure (see Evans 2007 for the overview)

The degree of insubordination is not clear yet (conventionalized ellipsis or reanalysis as a main clause structure, see Evans 2007)