

# Relative clause or nominalized clause: the evidence from Kazym Khanty

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## 1 What is this talk about?

In Kazym Khanty (Ob-Ugric, Uralic) there is no "usual" nominalization. Instead, a participial construction with a semantically vacuous noun *wɛr* 'deed' is used.

- (1) aś-eʃ wə-ʃ-ʃe puχ-əʃ kaša ʃɛw-əm wɛr  
father-3 know-NPST-3SG.O boy-3 kasha eat-NFIN.PST deed  
'The father knows that his son ate the kasha'.

This construction (hereafter **analytical nominalization**) is akin to non-finite relative clauses, see relativization of an adjunct in (2):

- (2) ma śatśaś-em nəm-ʃ-əʃʃe ʃaʃ  
I paternal.grandfather-1SG remember-NPST-3SG.O war  
par-əm χatʃ  
die-NFIN.PST day  
'My grandfather remembers the dat when the war ended'.

In this talk:

- We are going to show that the analytical nominalization can be approached as relativization

## 2 Relativization in Kazym Khanty: basic information

- Two participial forms: *-ti* (NFIN.NPST) and *-əm* (NFIN.PST)
- Do not differ in what they can relativize

- Almost any syntactic position is accessible to relativization (areal feature, as shown in (Pakendorf 2012))

- Subject relativization:

- (3) aj ikij-a mońs mońsi pirəs iki  
 little man-DAT tale tell.NFIN.NPST old man  
 ‘the old man who tells a fairytale to the boy’

- Direct object relativization

- (4) śaś-εm ɫət-əm päsən nuχ məŋ-s-εm  
 paternal.grandmother-1SG buy-NFIN.PST table up wipe-PST-1SG.SG  
 ‘I wiped the table that my grandmother bought’.

- Adjunct relativization

Most of the adjuncts initially bear the Locative case. All of them can easily be relativized:

- (5) tām χatɫ-ən jaj-əm mašaj-əɫ imij-a  
 this day-LOC elder.brother-1SG Mary-3 woman-DAT  
 wɯ-s-ɫe  
 take-PST-3SG.SG  
 ‘On this day, my brother married Mary (lit. took his Mary as a wife)’.
- (6) mɯŋ woš-ew-ən n̄əm-ɫ-a jaj-əm  
 we village-1PL-LOC remember-NPST-PASS elder.brother-1SG  
 mašaj-əɫ imij-a wɯj-əm χatɫ  
 Mary-3 woman-DAT take-NFIN.PST day  
 ‘In our village they remember the day when my brother married Mary’.

Relativization from under postpositions is severely restricted, although possible in some cases; this will not be considered in this talk.

- Possessor relativization

- (7) χiɫ-eɫ-aɫ amńa woš wəɫ-ti pirəs iki  
 grandchild-pl-3 Amnya village be-NFIN.NPST old man  
 ‘the old man whose grandchildren live in Kazym (lit. in the Amnya (river name) village)’

The pronominal subject of a relative clause triggers the possessive agreement on the head noun. Agreement with non-pronominal subjects is optional.

- (8) ɫɯw ɫɯŋt-ti kinškaj-\*(eɫ)  
 s/he read-NFIN.NPST book-3  
 ‘the book she is reading’

- (9) mašaj-en jəm-a arij-əm ar-(ɬ) wɛra katra  
 Mary-2SG good-DAT sing-NFIN.PST song-3 very ancient  
 ‘The song that Mary sang well is very old’.

In (Bikina 2019) we showed that the unmarked subject of a relative clause has possessor properties and takes the corresponding position in the structure.

### 3 Analytical nominalization

- Occurs in argument positions, especially with factive predicates
- Has a semantically vacuous noun as a head
- Can be formed with both NPST and PST participles
- Can involve unaccusative verbs as well (11)

- (10) ma wə-s-əm tām aj ikij-en mánəm lipət  
 I know-PST-1SG.SG this little man-2SG I.DAT flower  
 mojɬə-ti wɛr  
 gift-NFIN.NPST deed  
 ‘I knew that the boy would give me flowers’.

- (11) täta jɪŋk uw-əm wɛr ma wə-ɬ-əm  
 here water flow-NFIN.PST deed I know-NPST-1SG.SG  
 ‘I know that water flowed here’.

- Pronominal subjects behave alike, triggering possessive agreement on *wɛr*:

- (12) ɬuw náwɾəm ɬəmət-tə-ti wɛr-\*(ɬ) ma wə-ɬ-əm  
 s/he baby dress-TR-NFIN.NPST deed I know-NPST-1SG.SG  
 ‘I knew that she was dressing the baby’.

Unmarked subjects of a *wɛr*-construction are possessors, as in relative clauses (see Starchenko 2019 for details).

## 4 Relativization vs. analytical nominalization: the differences

### 4.1 Interaction with argument alternations

In Khanty, there are two argument alternation operations:

- Passivization

There is a *-a(j)-/-i(j)-* morpheme that has been traditionally defined as passive. The natural context for its occurrence is answering a general question like *What happened?* or beginning a story. The demoted participant bears the Locative case.

- (13) ma i puš am-ən pur-s-aj-əm  
 I one time dog-LOC bite-PST-PASS-1SG  
 ‘Once I was bitten by a dog’.

- Secundative alternation (or dative shift)

IO promotes to the DO position, triggering the object agreement on the finite verb. No special morphological marking is involved. DO turns into Locative. This structure can be further passivized.

- (14) aʎk-εm apl-εm soʎamat-ən mä-s-ʎe  
 mother-1SG younger.brother-1SG mash-LOC give-PST-3SG.SG  
 ‘My mother gave kasha to my brother (lit. My mother gave my brother with kasha)’.

- (15) apl-εm aʎk-εm-ən soʎamat-ən mä-s  
 younger.brother-1SG mother-1SG-LOC mash-LOC give-PST-PASS  
 ‘My mother gave kasha to my brother (lit. My brother is given by my mother with kasha)’.

Participles are voice-neutral: they do not attach the passive morpheme. Nevertheless, they can be passive, which can be seen from argument encoding. Thus, the passive subject (= the promoted DO) can be relativized, in which case the initial subject gets the Locative marking:

- (16) a. aʎk-εm ʎət-əm náń  
 mother-1SG buy-NFIN.PST bread  
 b. aʎk-εm-ən ʎət-əm náń  
 mother-1SG-LOC buy-NFIN.PST bread  
 ‘the bread that my mother bought’

Secundative alternation is also compatible with relativization. For instance, dative arguments are generally inaccessible to relativization and can only be relativized after a promotion to DO:

- (17) a. up-εm núχij-ən mij-əm amp nuχ  
 elder.sister-1SG meat-LOC give-NFIN.PST dog up  
 amt-əs  
 get.happy-PST[3SG]  
 b. \*up-εm núχi mij-əm amp nuχ amt-əs  
 elder.sister-1SG meat give-NFIN.PST dog up enjoy-PST[3SG]  
 ‘The dog to whom my sister had given meat was happy’.

Combination of secundative alternation and passivization is also legitimate:

- (18) up-εm-ən núχij-ən mij-əm amp nuχ  
 elder.sister-1SG-LOC meat-LOC give-NFIN.PST dog up  
 amt-əs  
 enjoy-PST[3SG]

‘The dog to whom my sister had given meat was happy’.

However, it is impossible to relativize an adjunct from a passive clause or from a clause where secundative alternation has occurred:

- (19) a. aŋk-εm    náń    ʔet-ijəʔ-ti                    ʔapka  
           mother-1SG bread buy-FREQ-NFIN.NPST shop  
       b. \*aŋk-εm-ən    náń    ʔet-ijəʔ-ti                    ʔapka  
           mother-1SG bread buy-FREQ-NFIN.NPST shop  
           ‘the shop where my mother usually buys bread’
- (20) a. pirəs iki    χiʔ-əʔ-a                    mońś mońśi                    χot  
           old man grandchild-3-dat tale tell.NFIN.NPST house  
       b. \*pirəs iki    χiʔ-əʔ                    mońś-ən mońśi                    χot  
           old man grandchild-3-dat tale tell.NFIN.NPST house  
           ‘the house where the old man tells fairytales to his grandson’

Analytical nominalization is more similar to the subject/object relativization than to the adjunct one: it allows for any kind of argument alternations.

- (21) ʔəχs-εm-ən    kinška wəj-ʔ-əm                    wεr wə-ʔ-εm  
       friend-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)’.
- (22) aj    ikij-εn-ən    lipət-ən    mojʔə-ti                    wεr-εm  
       little boy-2SG-LOC flower-LOC give-NFIN.NPST deed-1SG  
       wə-s-εm  
       know-PST-1SG.SG  
       ‘I knew that the boy would give me flowers (lit. that I would be given by the boy by flowers)’.

Relativized position	Passivization	Secundative alternation
Subject	NA	?
Direct object	ok	NA
Indirect object	ok	needed
Adjunct	*	*
Possessor	*	*
Analytical nominalization	ok	ok

## 4.2 Adnominal modification

Khanty is left-branching and has the following order of adnominal modifiers:

- (23) Possessor / Demonstrative > Numeral / Adjective > Bare noun

In a relative clause, the head noun can be modified with any kind of adnominal elements: adjectives, numerals, demmonstratives:

- (24) *jaj-əm äkt-əm wuśrəm-əŋ mərəχ núł-s-əm*  
 brother-1SG pick-NFIN.PST sour-PROP cloudberry grind-PST-1SG.SG  
 ‘I grinded the sour cloudberryes that my brother had picked’.
- (25) *aŋk-əm kat’aj-en jont-əm χəłəm jernas tini-j-əs*  
 mother-1SG Katya-2SG sew-NFIN.PST three dress sell-PST[3SG]  
 ‘My mother sold the three dresses that Katya had sewed’.
- (26) *tám aŋk-əm łət-əm náń jiləp*  
 this mother-1SG buy-NFIN.PST bread new  
 ‘This bread that my mother bought isn fresh’.

In contrast, analytical nominalization can only attach high modifiers, e.g. demonstratives, but not adjectives or numerals:

- (27) *waśaj-en tám tərəmłor-a jäNX-@m wər-ł ma*  
 Vasya-2SG this Numto-DAT go-NFIN.PST deed-3 I  
*wə-ł-əm*  
 know-NPST-1SG.SG  
 ‘I know about this Vasya’s trip to Numto’.
- (28) \**ma wə-ł-əm maśaj-en tēs jak-ti wər*  
 I know-NPST-1SG.SG Masha-2SG skillful dance-NFIN.NPST deed  
 IR: ‘I know that Masha is a skillful dancer’.
- (29) *waśaj-en tərəmłor-a jäNX-@m wət wər-ł ma*  
 Vasya-2SG Numto-DAT go-NFIN.PST five deed-3 I  
*wə-ł-əm*  
 know-NPST-1SG.SG  
 IR: ‘I know about the five trips of Vasya to Numto’.

Modifier type	Analytical nominalization	Head noun of a RC
Adjectival	–	+
Numeral	–	+
Demonstrative	+	+
Possessor	+	+

### 4.3 Adverbial modification

Analytical nominalization and relative clauses allow for different number of adverbial modifiers. In particular, analytical nominalization can be modified by temporal adverbials, while relative clauses restrict their use:

- (30) *waśaj-en jəχət tər-əmłor-a jāŋχ-əm wər-ł ma*  
 Vasya-2SG later Numto-DAT go-NFIN.PST deed-3 I  
*wə-ł-əm*  
 know-NPST-1SG.SG  
 ‘I know that Vasya went to Numto later’.

- (31) waśaj-en iməʈtijən tər-əmʈor-a jəŋχ-əm wər-ʈ ma  
 Vasya-2SG once Numto-DAT go-NFIN.PST deed-3 I  
 wə-ʈ-əm  
 know-NPST-1SG.SG  
 ‘I know that Vasya went to Numto once’.
- (32) \*ma wəmʈt-ijəʈ-ʈ-əm up-əm jəχət wənʈt-ijəʈ-ti  
 I study-FREQ-NPST-1SG sister-1SG later study-FREQ-NFIN.NPST  
 aškolaʈ-ən  
 school-LOC  
 IR: ‘I study in the school where my sister will study later’.
- (33) ??amp-ən iməʈtijən pur-əm aj ik-en juʈ-ən  
 dog-LOC once bite-NFIN.PST little man-2SG home-LOC  
 oməs-ʈ  
 sit-NPST[3SG]  
 ‘The boy that was once bitten by a dog stays at home’.

#### 4.4 Analysis

- Analytical nominalization involves more structure than relative clauses: it allows for more adverbial modifiers
- However, the head noun cannot attach low modifiers
- Finally, analytical nominalization resembles argument relativization with respect to argument alternations: it can be derived from a passive clause and from a clause where the object has been promoted.

	Argument relativization (SU, DO)	Adjunct relativization	Analytical nominalization
Argument alternations	+	–	+
Low modification	+	+	–
TP-adverbial modification	?	–	+

- We assume that analytical nominalization is actually relativization of a factive argument. This argument is located somewhere above TP (say, ForceP) and introduces the factive proposition.
- In this respect, our proposal is similar to the analysis of English sentential complements of attitude nouns, such as *claim*, *belief* etc. (Nichols 2004; Arsenijević 2009; Moulton 2017). These proposals consider sentential complements of attitude nouns as relativization of factive argument, although they have some commonalities with sentential complements of verbs.

- The crucial difference is that when the factive argument gets relativized, it has to be spelled-out, and that is why the semantically empty head is needed.

**Why does the analytical nominalization involve more structure?**

→ Because of the high position of the factive argument, which requires more structure.

**Why cannot the analytical nominalization be modified with adjectives?**

→ Because *wɛr* ‘deed’ is a spelled-out factive argument and does not obtain several nominal characteristics. The possibility for high modification can be explained as follows: by relativization, the nominal functional layers of are overbuilt above the verbal structure, starting from PossP. In this way, they provide a position for the subject of a relative clause, which is possessor indeed.

**What are the problems of your analysis?**

→ Some authors claim that the factive argument cannot undergo movement (Rothstein 1995). Our analysis, in contrast, involves its relativization. Even though we cannot argue for raising or matching analysis of relativization in Kazym Khanty so far, we speculate that the English data analyzed by Rothstein is different from the Kazym Khanty one in the following aspect: Kazym Khanty has a special grammaticalized element to spell the factive argument out. However, further research is needed.