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 wcr ‘deed’ is used.

(1) aš-či wo-1-le puyč-či kaša 4cw-om wcr
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 ʃaʃša-č em nom-1-oHe 4aɬ par-om ʃatɬ
I paternal.grandfather-1SG remember-NPST-3SG.O war die-NFIN.PST day
‘My grandfather remembers the day 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 -ɬm (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 moč moči piroš iki
little man-DAT tale tell.NFIN.NPST old man
‘the old man who tells a fairytale to the boy’

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4. sas-cm tot-am pasan nuq mon-s-cm 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. tam catl-on jaj-am masajar-imj-a wu-s-le
   this day-LOC elder.brother-1SG Mary-3 woman-DAT take-PST-3SG.O
   ‘On this day, my brother married Mary (lit. took his Mary as a wife)’.

6. mun woq-ew-on nom-4-a jaj-am masajar-imj-a wuj-em catl
   we village-1PL-LOC remember-NPST-PASS elder.brother-1SG 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. chi-el-ael amuna woq wot-ti piraq 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. lwu luq-ti kinskaj-*el)
   s/he read-NFIN.NPST book-3
   ‘the book she is reading’

9. masaj-en jem-a arij-am ar-() wera katra
   Mary-2SG good-DAT sing-NFIN.PST song-3 very ancient
   ‘The song that Mary sang well is very old’.

Bikina (2019) 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 wo-s-cm tam aj ikij-en mainm lipot moji-ti wwr
    I know-PST-1SG.SG this little man-2SG I.DAT flower gift-NFIN.NPST deed
    ‘I knew that the boy would give me flowers’.

11. tata jiqk uw-om wwr ma wo-l-cm
    here water flow-NFIN.PST deed I know-NPST-1SG.SG
    ‘I know that water flowed here’.

- Pronominal subjects behave alike subjects of participial clauses, triggering possessive agreement on wwr:

12. lwu nawrem lomot-t-() wwr-() ma wo-l-cm
    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 wwr-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)  
  \[ \text{ma i puš am-an pur-s-aj-am} \]
  \[ I \quad \text{one time dog-LOC bite-PST-PASS-1SG} \]
  \[ \text{‘Once I was bitten by a dog’}. \]

- **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)  
  \[ \text{apl-cm aŋk-cm sołamat-an mā-s-4e} \]
  \[ \text{mother-1SG younger.brother-1SG mash-LOC give-PST-3SG.O} \]
  \[ \text{‘My mother gave kasha to my brother (lit. My mother gave my brother with kasha)’}. \]

  (15)  
  \[ \text{apl-cm aŋk-cm-an sołamat-an mā-s} \]
  \[ \text{younger.brother-1SG mother-1SG-LOC mash-LOC give-PST-PASS} \]
  \[ \text{‘My mother gave kasha to my brother (lit. My brother is given by my mother with kasha)’}. \]

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)  
\[ \text{a. aŋk-cm őt-cm ńań} \]
\[ \text{mother-1SG buy-NFIN.PST bread} \]
\[ \text{‘the bread that my mother bought’} \]

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)  
\[ \text{a. up-cm ńuźiij-an mij-čm amp nuź aṁt-čs} \]
\[ \text{elder.sister-1SG meat-LOC give-NFIN.PST dog up get.happy-PST[3SG]} \]
\[ \text{‘The dog to whom my sister had given meat was happy’}. \]

b. *up-cm ńuźi mij-čm amp nuź aṁt-čs

Combination of secundative alternation and passivization is also legitimate:

(18)  
\[ \text{up-cm-an ńuźiij-an mij-čm amp nuź aṁt-čs} \]
\[ \text{elder.sister-1SG-LOC meat-LOC give-NFIN.PST dog up enjoy-PST[3SG]} \]
\[ \text{‘The dog to whom my sister had given meat was happy’}. \]

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

(19)  
\[ \text{a. aŋk-cm ńań őt-i jál-ti łapka} \]
\[ \text{mother-1SG bread buy-FREQ-NFIN.NPST shop} \]
\[ \text{‘the shop where my mother usually buys bread’} \]
\[ \text{b. *aŋk-cm-čm ńań őt-i jál-ti łapka} \]
\[ \text{mother-1SG-LOC bread buy-FREQ-NFIN.NPST shop} \]
Analytical nominalization is more similar to the subject/object relativization than to that of the adjunct: it allows for any kind of argument alternations.

Relativized position | Passivization | Secundative alternation
--- | --- | ---
Subject | NA | ?
Direct object | ok | ok
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, demonstratives:

(24) jaj-om äkt-om wuš-om-ǝŋ moŋ-ǝŋ ǝ̂n-s-om
brother-1SG pick-NFIN.PST sour-PROP cloudberry grind-PST-1SG.SG
‘I grinded the sour cloudberries that my brother had picked’.

(25) aşk-om kat’aj-en jont-om ǝ̂n om jernia-ǝ̂n
mother-1SG Katya-2SG sew-NFIN.PST three dress sell-PST[3SG]
‘My mother sold the three dresses that Katya had sewed’.

(26) tǝ̂m aşk-om ǝ̂t-om ǝ̂n ǝ̂n ji-ap
this mother-1SG buy-NFIN.PST bread new
‘This bread that my mother bought is fresh’.

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

(27) wašaj-en tǝ̂m torom ǝ̂r-a jaŋ-ǝ̂m wer-4 ma wo-4-em
Vasya-2SG this Numto-DAT go-NFIN.PST deed-3 I know-NPST-1SG.SG
‘I know about this Vasya’s trip to Numto’.

(28) *ma wo-4-em mašaj-en tos jak-ti wer
I know-NPST-1SG.SG Masha-2SG skillful dance-NFIN.PNST deed
IR: ‘I know that Masha is a skillful dancer’.

(29) wašaj-en tǝ̂m ǝ̂r-a jaŋ-ǝ̂m wet wer-4 ma wo-4-em
Vasya-2SG Numto-DAT go-NFIN.PST five deed-3 I know-NPST-1SG.SG
IR: ‘I know about the five trips of Vasya to Numto’.
### 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:

\[(30)\] wašaj-en jəju-t torəm ūr-a jājəm-wət ma wə-t-em

Vasya-2sg later Numto-DAT go-NFIN.PST deed-3 I know-NPST-1SG.SG

‘I know that Vasya went to Numto later’.

\[(31)\] wašaj-en imətiqon torəm ūr-a jājəm-wət ma wə-t-em

Vasya-2sg once Numto-DAT go-NFIN.PST deed-3 I know-NPST-1SG.SG

‘I know that Vasya went to Numto once’.

\[(32)\] *ma wəmt-iqot-i-wən έp-em jəju-wənt-iqot-ti aškələq-an

I study-FREQ-NPST-1SG sister-1SG later study-FREQ-NFIN.NPST school-LOC

IR: ‘I study in the school where my sister will study later’.

\[(33)\] ?wamp-am imətiqon pur-am aj ik-en jəul-ən oməs-wən

dog-LOC once bite-NFIN.PST little man-2SG home-LOC 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.

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- 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.

- Sentential complements of attitude nouns such as claim, belief etc. have often been analyzed as relative clauses (see Nichols 2004; Arsenijević 2009; Moulton 2017 for English; Krapova, Cinque 2016). These proposals consider sentential complements of attitude nouns as relativization of factive argument, although they have some commonalities with sentential complements of verbs. However, it has been observed that nouns that can be complemented exhibit different syntactic properties and do not form a single class (Krapova, Cinque 2016; Letuchiy 2018).

- The crucial difference of our proposal is that when the factive argument gets moved, 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 *we*‘deed’ is a spelled-out factive argument and does not possess 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 weaknesses of our 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.

## 5 References


