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# Contact-induced change in Surgut Khanty relative clauses

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**Abstract:** This paper inquires into the structure of newly emerging relative clauses (RCs) in the Surgut dialect of Khanty, an endangered Finno-Ugric language of Western Siberia. The original externally headed RCs in this language are prenominal, with a participial verb form and a gap at the relativization site. More recently new types have been observed as well: post-nominal participles with and without *řu* (a morpheme that looks identical to the distal demonstrative ‘that’) as well as postnominal finite RCs with a relative pronoun. These types have emerged as a result of extensive language contact with Russian, the socially dominant language of the area. The paper provides the first detailed description and analysis of the new Surgut Khanty RC types, exploring their syntactic structure as well as the extent to which language contact has shaped these structures.

**Keywords:** relative clause, relative pronoun, correlative, (non)finiteness, demonstrative

## 1 Introduction

This paper investigates contact-induced change in the grammar of relative clauses (RCs) in Khanty, an endangered Ob-Ugric (Finno-Ugric, Uralic) language spoken along the river Ob and its tributaries in Western Siberia. Khanty is best characterized as a dialect continuum with three main varieties: Northern, Eastern, and the by now extinct Southern Khanty. There are significant phonological, morphological and lexical differences between these dialects making mutual intelligibility difficult (often impossible) between Northern and Eastern

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Khanty (Schmidt 2006 [1973]: 28–36).<sup>1</sup> Here we focus on Surgut Khanty, one of the two major Eastern dialects. Surgut Khanty has approximately 2,800 speakers (Csepregi and Onina 2011) and is mutually unintelligible with Vakh-Vasyugan Khanty, the other major Eastern dialect (Schön 2017: 12).

Khanty is a highly agglutinative language with SOV word order.<sup>2</sup> Traditionally, Khanty employs just one finite verb per clause, and makes widespread use of non-finite subordination; cf. Nikolaeva (1999: 45–46) and Schmidt (2006 [1973]: 69) on Northern Khanty and Filchenko (2007: 435) on Eastern Khanty. The first Khanty texts were collected from the Northern dialects in 1844; the first texts of the Surgut dialect were collected in 1901 and were published as Paasonen and Vértes (2001). In these texts relative clauses with an external head are categorically pre-nominal and participial in line with the strong preference for one finite verb per clause. These RCs employ the gap strategy: they do not contain an internal head or a relative pronoun (and have no complementizer either).<sup>3</sup> This pattern is likely to be the original way of expressing RCs in Uralic (Nikolaeva to appear).

- (1) a. [Läki čoq-tə]            jay-a            jöwət-0-0.  
           ball kick-PRS.PTCP people-LAT come-PST-3SG  
           ‘He came to people kicking a ball.’  
           (Paasonen and Vértes 2001: 50)<sup>4</sup>

**1** This stems from the fact that the Khantys live in small groups scattered over a large geographical area.

**2** Knowledge of the following morphological properties of Surgut Khanty will make reading this paper easier: (i) In contemporary Surgut Khanty present tense is morphologically marked (by the suffix -t), past tense is unmarked. When the first texts were collected, however, there were two different past tenses in the language: one morphologically unmarked, the other marked with the suffix -s. This marked past tense appears in (2). (ii) Khanty has no definite article; definiteness is often indicated by demonstratives. (iii) There is differential object marking in the language: pronominal objects bear accusative case while all other objects remain unmarked.

**3** We use the term ‘relative clause’ for examples like (1) in a pre-theoretical sense and do not mean to imply that they necessarily have structural parallels with correlatives or post-nominal finite relatives.

**4** Throughout the article we follow the transcription system worked out by Csepregi (2016: 136), i. e. texts that were published following a different system were transcribed for the sake of uniformity. It is also important to note that we transcribed the examples according to the Surgut Khanty literary norm, that is, our sample sentences do not reflect the minor subdialectal phonetic differences. We also unified the glosses of Surgut Khanty data and adapted the glosses of examples cited from other publications to the Leipzig Glossing Rules. Abbreviations not included in the Leipzig Glossing Rules are given in the appendix.

- b. *T'i* [wät-m-at] wäjəy quł məŋati pit-t-0.  
 this kill-PST.PTCP-3SG animal fish we.DAT fall-PRS-3SG  
 'We'll get hold of the game (lit. animal and fish) killed by him.'  
 (Paasonen and Vértes 2001: 72)

These RCs are in many ways similar to the pre-nominal participial noun-modifiers in the well-known Indo-European languages, e. g. English *the slowly falling/fallen leaves*.

Correlative clauses (sometimes also called co-relatives) are a type of RC with an internal head. They occur on the left periphery of the main clause and are linked to the main clause via a noun (phrase), the correlate, which must contain or correspond to a demonstrative.<sup>5</sup> The correlative clause and the nominal correlate pick out the same referent and occupy the same argument slot (Lipták 2009: 2). Correlative clauses appear already in the first recorded Khanty texts. They employ a finite verb and a relative pronoun which is form-identical to the corresponding interrogative pronoun. We shall refer to such a relative pronoun as an 'interrogative-based relative pronoun'.

- (2) [*Pupi qōt* öjəytə-s-təy], jəm uləm wär-s-əyən pupi-nat.  
 bear where find-PST-SG<3SG good dream do-PST-3DU bear-INS/COM  
 'Where he found the bear, [there] they said goodbye [to each other] with the bear.'  
 (Paasonen and Vértes 2001: 24)

It is generally assumed that Proto-Uralic had very little finite embedding, and no complementizers or other left-peripheral sentence connectors (such as relative pronouns) at all (Hajdú 1966: 82; Bereczki 1996: 94, among others). If this is so, then correlatives represent an innovation in Khanty. They likely developed under the strong influence of Russian as a more prestigious contact language (see also Potanina 2008: 78). The fact that correlatives represent a relatively rare construction in late-nineteenth century Khanty fits well with this picture.

Since they are already present in the first texts, we cannot tell exactly when correlatives first appeared in Khanty. What matters for us, however, is that in the earliest Surgut Khanty texts there are only two types of RCs. Externally headed RCs are participial and pre-nominal while correlatives are finite and have a

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<sup>5</sup> Depending on the language, the correlate may be *pro*-dropped. This is also the case in Khanty, as (2) and the examples in Gulya (1966) demonstrate.

relative pronoun. Crucially, there are no externally headed RCs which are finite or which feature a relative pronoun. This state of affairs was probably stable until recently. In his description of Vakh Khanty, another Eastern dialect, Gulya (1966) mentions the existence of relative pronouns, but all of his examples are correlatives.<sup>6</sup>

In the recent past, however, under the growing influence of Russian, new types of RCs have become possible. Based on work with a native speaker consultant, Csepregi (2012) reports three new types of externally headed RCs in Surgut Khanty. The first is the post-nominal participial RC with no relative pronoun or other sentence connector, as in (3):

- (3) *Quł*, [*ma-nə katł-əm*], *put-nə qyt'-0-0*.  
 fish I-LOC catch-PST.PTCP pot-LOC stay-PST-3SG  
 'The fish caught by me stayed in the pot.'  
 (Csepregi 2012: 86)

Compared to the externally headed RC inherited from Proto-Uralic (see [1]), (3) reverses the word order of the modifier and the head but introduces no additional changes. The second new type, as in (4), is the post-nominal participial RC introduced by what Csepregi calls the 'proto-relative pronoun' *tu* (form-identical with the distal demonstrative 'that'):

- (4) *Pyrəš iki*, [*tu lüw äwi-t-at* *ma*  
 old man that he daughter-3SG-INS/FIN I  
*nämlayt-əyəł-t-am*], *qunta pə mantem äwi-t*  
 think-FREQ-PRS.PTCP-1SG when PRT I.DAT daughter-3SG  
*əntə mə-t-0* (*mə-t-təy*).  
 NEG give-PRS-3SG (give-PRS-SG<3SG)  
 'The old man whose daughter I keep thinking about will never give me his daughter.'  
 (Csepregi 2012: 87)

Finally, the third type, shown in (5), is the finite post-nominal RC featuring the interrogative-based relative pronouns which also occur in correlatives:

<sup>6</sup> Moreover, Potanina (2013) identifies all of Gulya's examples as translations of Russian proverbs.

- (5) *Puyəl, [mətapi-nə ma säm-a pit-0-əm], ənəl lår qånəŋ-nə*  
 village which-LOC I eye-LAT fall-PST-3SG big lake shore-LOC  
*äməs-t-0.*

sit-PRS-3SG

‘The village in which I was born (lit. fell into eye) is located on the shore of a big lake.’

(Csepregi 2012: 88)

The focus of Csepregi’s study was the pre-nominal participial RC; therefore, several questions regarding the new RC types in (3) through (5) necessarily remained open. We list some of these here:

- Pre-nominal RCs: Do they also admit the new relative pronouns or *tü*?
- Post-nominal non-finite RCs: Do they show structural changes with respect to pre-nominal RCs, or does the change only affect the order of the noun and the RC? Do they admit relative pronouns?
- *tü* in post-nominal RCs: How similar is it to the relative pronouns used in correlatives and externally headed finite RCs? Can it appear in finite RCs?
- Relative pronouns: Do all interrogative pronouns have a use as a relative pronoun? Can the relative pronouns of finite RCs also appear in non-finite post-nominal RCs? Can anything precede the relative pronoun within the RC? Does the type of the external head (lexical noun or pronoun) influence the choice of relative pronoun?

The first aim of this paper is to answer these empirical questions.<sup>7</sup>

Our second aim is to determine to what extent language contact with Russian is responsible for the rise of the new RCs and, relatedly, what types of contact-induced change are attested in the domain of Khanty RCs. Khanty and

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<sup>7</sup> RCs with relative pronouns have been mentioned in passing in the general Khanty grammatical notes in Honti (1984: 75), too, and they have also been reported from all major dialects. Northern Khanty, for instance, has correlatives (see the texts collected in Xomljak 2002) as well as externally headed finite RCs (Nikolaeva 1999: 45), both with interrogative-based relative pronouns. The interrogative-relative pronoun syncretism in Northern Khanty is also mentioned in Steinitz (1950: 60) and Schmidt (1978: Sect. 4.6.4; published in Fejes [2008]). The extinct Southern Khanty dialect also had correlatives with interrogative-based relative pronouns (Csepregi 1996, analysing texts collected by Karjalainen between 1898 and 1902). The new RCs and relative pronouns in Northern and Southern Khanty have not been studied in any depth, however.

The other major Eastern dialect, Vakh-Vasyugan Khanty, has finite correlatives, finite externally headed RCs and finite free relatives, all featuring interrogative-based relative pronouns, as well as participial RCs postposed to the head. These were studied in Filchenko (2007), Potanina (2008, 2013) and Potanina and Filchenko (2016).

Russian have a long history of language contact: according to Potanina and Filchenko (2016: 27), Russian has been the dominant language in the Eastern Khanty region for over a period of “at least 150 years, and markedly so within the recent 50–60 years”.<sup>8</sup> Most Khanty speakers living today went to boarding school, which sped up their assimilation to Russian language and culture. As a result, today wide-spread diglossia (ca. 100% unidirectional bilingualism) characterizes Khanty-speaking communities. The younger generations are either balanced bilinguals or their dominant language is Russian. Children learn Khanty only if their parents have traditional jobs such as fishing (Csepregi and Onina 2011). In this situation, Russian (SVO) is exerting a strong influence on both the lexicon and the syntax of the language. Here we seek to identify the depth of this influence in the realm of RCs.

In order to gain insight into the new RCs exemplified in (3)–(5), we worked closely with two speakers. They are both Khanty-Russian bilinguals but their language acquisition before school was monolingual (Khanty). Our primary consultant was a fluent speaker of the Yugan variety.<sup>9</sup> She was born in 1966 and has worked as a teacher, a journalist and a collector of Khanty texts in the field. She provided grammaticality judgments on an initial written questionnaire in the autumn of 2017 in Nefteyugansk (Siberia). Additionally, we worked with her in Budapest over a two-month period between January and March 2018. During this period she explained and clarified the judgments in the questionnaire in detail and provided grammaticality judgments on further sentences. Additionally, she performed a picture prompt based spontaneous sentence production task as well as several directed sentence production tasks. The latter involved arranging Khanty words printed to flashcards into the most neutral word order. Data provided by her are marked as (Yg.). Our other informant was a fluent speaker of the Tromagan variety. She was born in 1949 and uses Khanty in (part of) the family. She provided grammaticality judgments on a subset of the issues investigated here during our fieldwork in Kogalym (Siberia) in June 2017. Data collected from her are marked as (Tra.).<sup>10</sup> During the grammaticality judgment tasks both consultants were provided with Khanty sentences; they were

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**8** Laakso (2010: 600), however, claims that “the dominance of Russian administration and culture remained rather superficial until the twentieth century”.

**9** She was also the informant of Csepregi’s (2012) study.

**10** Given the mutual unintelligibility and the syntactic differences between Khanty dialects, the empirical generalizations and conclusions drawn from one (sub)dialect cannot automatically be assumed to hold for other (sub)dialects. As a result, we consider our findings to have validity over Surgut Khanty, and in particular over its Yugan and Tromagan varieties, rather than over Eastern Khanty in general. Importantly, we do not claim that our findings extend to the other major Eastern dialect, Vakh-Vasyugan Khanty.

not asked to translate Russian sentences into Khanty. Both speakers were tested on the target constructions on multiple different occasions. The interviews were conducted in Russian by Katalin Gugán.<sup>11</sup>

The paper is structured as follows. The discussion begins in Section 2 with post-nominal participial RCs without a relative pronoun or other sentence connector. In Section 3, we turn to post-nominal participial RCs introduced by *tü*. Finite RCs whose external head is a lexical noun will be the topic of Section 4 while in Section 5 we zoom in on finite RCs with a pronominal head and on correlatives. Section 6 concludes our discussion.

## 2 Post-nominal participles without a connecting element

As already mentioned above, the original externally headed RCs in Khanty are participial, pre-nominal, and employ the gap strategy (i. e. they have no relative pronoun). Example (6) is illustrative:

- (6) *Ma nüŋat [aŋk-em-nə wär-əm] səq-at*  
 I you.ACC mother-1SG-LOC make-PST.PTCP fur.coat-INS/FIN  
*mə-l-əm.*  
 give-PRS-1SG  
 ‘I give you a fur coat made by my mother.’ (Yg.)  
 (Lit.: I give you(ACC) with a fur coat made by my mother.)

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<sup>11</sup> A reviewer asks if the new RC types also appear in corpora. The number of searchable corpora and the amount of available texts for Surgut Khanty is very limited. In addition, in some published texts structures which show Russian influence are deliberately replaced with alternative, more ‘Khanty-like’ structures. Nevertheless, Surgut Khanty interrogative-based relative pronouns can be found in Csepregi’s (2001 [1998]) chrestomathy, in texts collected by Lyudmila Kayukova and Zsófia Schön (Kayukova and Schön 2018) and in Volkova–Solovar’s dictionary (2016).

Relative pronouns have, in fact, been observed in all major Khanty dialects (see fn. 7). Up to the 1980s Khanty grammars were exclusively based on the analysis of contiguous texts (especially folklore texts) collected from speakers, thus the relative pronouns reported in Steinitz (1950), Schmidt (1978), Honti (1984) and Csepregi (1996) are all based on naturally occurring examples. Current ongoing work on the new RC types in Vakh-Vasyugan Khanty (Filchenko 2007; Potanina 2008, Potanina 2013; Potanina and Filchenko 2016) is also exclusively based on naturally occurring examples.

More recently, however, participles can also occur post-nominally. This requires an intonational break both before and after the participle:

- (7) *Ma nünjat säq-at,*                    || [*aŋk-em-nə wär-əm*],  
 I    you.ACC fur.coat-INS/FIN    mother-1SG-LOC make-PST.PTCP  
 || *mə-t-əm.*  
 give-PRS-1SG  
 ‘I give you a fur coat made by my mother.’ (Yg.)

The contact language Russian allows both the participle-N and the N-participle order, in relatively free variation:

- (8) Russian  
 a. (*etot*)                    [*ubi-t-yj*]                    *Ivan-om*]  
     this.M.SG.NOM kill-PASS.PST.PTCP-M.SG.NOM Ivan-INS  
     *olen’*  
     reindeer(M).SG.NOM  
     ‘(this) reindeer killed by Ivan’  
 b. (*etot*)                    *olen’*                    [*ubi-t-yj*]  
     this.M.SG.NOM reindeer(M).SG.NOM kill-PASS.PST.PTCP-M.SG.NOM  
     *Ivan-om*]  
     Ivan-INS  
     ‘(this) reindeer killed by Ivan’

With (7) as a new possibility, Khanty has thus taken over the flexibility of participle placement with respect to the head noun from Russian.

Although the Khanty and Russian patterns in (7) and (8b) exhibit the same head-modifier order, they also differ in three important respects. Firstly, while N-participle is a neutral word order in Russian, in Khanty this order is clearly marked and less preferred than participle-N. Secondly, Russian participles in both pre-nominal and post-nominal position exhibit gender, number and case concord with the head noun. This is shown in (9) for post-nominal participles:

- (9) Russian  
 a. (*etot*)                    *olen’*                    [*ubi-t-yj*]  
     this.M.SG.NOM reindeer(M).SG.NOM kill-PASS.PST.PTCP-M.SG.NOM  
     *Ivan-om*]  
     Ivan-INS  
     ‘(this) reindeer killed by Ivan’



- b. *et-imi olen'-ami, [ubi-t-yimi Ivan-om]*  
 this-PL.INS reindeer-PL.INS kill-PASS.PST.PTCP-PL.INS Ivan-INS  
 'with these reindeer killed by Ivan'

In Khanty, on the other hand, post-nominal participles remain uninflected (just like their pre-nominal counterparts, cf. [6] above):

- (10) *Áwəł-ət, || [af-em-nə li'at-əm], || nüki-qát*  
 sleigh-PL father-1SG-LOC prepare-PST.PTCP tent  
*iłpi-nə áməs-t-ət*  
 in.front.of-LOC sit-PRS-3PL  
 'The sleighs my father has prepared are (lit.: sit) in front of the tent.' (Yg.)

The morphological dependency between the noun and the post-nominal participle in Russian is thus not replicated in Khanty (even though, as we will see below, adjectives and numerals in post-nominal position do bear agreement). At the same time, this situation yields a parallel between the two languages on a more abstract level: in both cases, pre-nominal and post-nominal participles differ from each other only in their placement with respect to the head noun, without any other observable differences.

The lack of number and case on Khanty post-nominal participles stands in an interesting contrast with data from Hungarian, a close relative of Khanty. Similarly to Khanty, participial RCs in Hungarian are pre-nominal by default and show no number or case concord with the head noun:<sup>12</sup>

- (11) Hungarian  
*El-ad-t-am a [tavaly kiad-ott]-(\*ak-at) könyv-ek-et.*  
 PART-sell-PST-1SG the last.year publish-PST.PTCP-PL-ACC book-PL-ACC  
 'I sold the books published last year.'

Participles can also appear post-nominally, between two intonational breaks, as in Khanty. In this case, however, the number and case marking of the head noun must appear on the participle:<sup>13</sup>

<sup>12</sup> In contrast to Russian, Khanty and Hungarian have no gender.

<sup>13</sup> This is consistent with how other appositives work in the language:

- (i) Hungarian  
 a. *Az értékes könyv-ek-et külön tároljuk.*  
 the valuable book-PL-ACC separate store.1PL  
 'We store the valuable books separately.'

## (12) Hungarian

*El-ad-t-am a könyv-ek-et,* || [*a tavaly*  
 PART-sell-PST-1SG the book-PL-ACC the last.year  
*kiad-ott]-\*(ak-at).*  
 publish-PST.PTCP-PL-ACC  
 ‘I sold the books, the ones published last year.’

It is generally agreed that number and case marking on Hungarian post-nominal participles is obligatory because in these examples the participle, in fact, stands in a pre-nominal position with respect to an elided head noun. The number and case inflection belong morphosyntactically to the noun, but after N-ellipsis they must attach to the participle for phonological support (Dékány 2011; Lipták and Saab 2016, among others). The structure of the relevant part of (12) is thus (13):

## (13) Hungarian

*a könyv-ek-et,* || [*a tavaly kiad-ott*] *könyv-ek-et*  
 the book-PL-ACC the last.year publish-PST.PTCP book-PL-ACC  
 ‘the books, the ones published last year’

We suggest that the contrast between (10) and (12) shows that in Khanty there is no elided noun after the participle; instead, genuine post-nominal placement of participles (head-modifier order) is becoming possible.

Khanty post-nominal participles also have different distributional properties from post-nominal numerals and adjectives. Numerals and adjectives, like all Khanty noun modifiers, are pre-nominal by default (and show no concord with the head):

- (14) a. *Ma qotəm weli-nat mən-t-əm.*  
 I three reindeer-INS/COM go-PRS-1SG  
 ‘I go with three reindeer.’ (Yg.)  
 b. *Maša newi weli-γən wəj-0-0.*  
 Maša white reindeer-DU buy-PST-3SG  
 ‘Masha bought (two) white reindeer.’ (Yg.)

They can appear post-nominally, enclosed by intonation breaks, but crucially, in this case they must have the same number and case marking as the head noun:

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- b. *A könyv-ek-et, az értékes-ek-et, külön tároljuk.*  
 the book-PL-ACC the valuable-PL-ACC separate store.1PL  
 ‘We store the books, the valuable ones, separately.’

- (15) a. *Ma weli-nat,*                    || *qoləm-nat,*            || *mən-l-əm.*  
 I reindeer-INS/COM    three-INS/COM    go-PRS-1SG  
 ‘I go with reindeer, three ones.’ (Yg.)  
 b. *Maša weli-yən,*            || *newi-yən,* || *wəj-O-O.*  
 Masha reindeer-DU    white-DU    buy-PST-3SG  
 ‘Masha bought (two) reindeer, white ones.’ (Yg.)

Lack of number and case concord in post-nominal position produces ungrammaticality:

- (16) a. \**Ma weli-nat*                    *qoləm mən-l-əm.*  
 I reindeer-INS/COM three go-PRS-1SG  
 ‘I go with reindeer, three.’ (Yg.)  
 b. \**Maša weli-yən*            *newi wəj-O-O.*  
 Masha reindeer-DU white bought-PST-3SG  
 ‘Masha bought (two) reindeer, white ones.’ (Yg.)

The post-nominal numerals and adjectives in (15) and (16) thus find close counterparts in Hungarian post-nominal N-modifiers (participles, adjectives and numerals), and they likely also involve an elliptical structure similar to (13). Khanty post-nominal participles, on the other hand, involve no elliptical noun; following the Russian pattern, Khanty is at an early stage of developing a new head-modifier order for participial RCs.<sup>14</sup>

The third difference between post-nominal participles in Russian and Khanty concerns participle-internal word order. Khanty participles in pre-nominal position are strictly head-final. If the agent is expressed, it is marked by

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**14** There is an additional difference, too, between numerals and adjectives on the one hand and participles on the other hand. If they do not appear in the most neutral pre-nominal position, numerals and adjectives are best placed after the verb, at the very end of the clause. The examples below are thus preferred over (15).

- (i) a. *Maša weli-yən wəj,*    *newi-yən.*  
 Masha reindeer-DU bought white-DU  
 ‘Masha bought (two) reindeer, white ones.’ (Yg.)  
 b. *Ma weli-nat*                    *mən-l-əm,*    *qoləm-nat.*  
 I reindeer-INS/COM go-PRS-1SG three-INS/COM  
 ‘I go with reindeer, three of them.’ (Yg.)

There is no similar preference for sentence-final position over post-nominal position in the case of participles, however. This corroborates our proposal that Khanty participles are developing a head-modifier order unique to them in the noun phrase.

locative case and is preferred to be the first constituent within the participle, as in (6). These properties also characterize post-nominal participles; see (7) and (10). In Russian, on the other hand, the head-final order is dispreferred for post-nominal participles; the agent (bearing instrumental case) follows the participial verb, as in (9) (Irina Burukina, p.c.). That is, the order of the head noun and the RC can now follow the Russian model, but the word order within the participle does not change.

There are no other structural changes to Khanty post-nominal participles either. When in a contact situation the recipient language has predominantly non-finite subordination while the model language employs wide-spread finite subordination and left-peripheral sentence connectors, the result may be that the non-finite clauses of the recipient language start admitting sentence connectors (complementizers, relative pronouns, etc.) while at the same time keeping the non-finite verbal form. An example of this is seen in Dolgan (Siberian Turkic) purpose clauses (17). The purposive relation in Dolgan is expressed by the future participle bearing possessive accusative case (cross-referencing the subject of the non-finite clause). As a result of language contact, however, purposive participles now admit the complementizer *štobī* ‘in order to’ borrowed from Russian (Stapert 2013: Ch. 8.3). Importantly, in Russian *štobī* ‘in order to’ occurs in finite embedded clauses and infinitives but not in participles.

(17) Dolgan

<i>I</i>	<i>onu</i>	<i>buollayīna</i>	<i>tur-uor-a-bīt</i>	<i>buo</i>
and.R	that.ACC	PRT	stand-CAUS-SIM.CVB-PST.PTCP	PRT
<b><i>štobī</i></b>	<i>sīvorotka</i>	<i>buol-uoy-un</i>	<i>ke.</i>	
in.order.to	whey.R	become-FUT.PTCP-ACC.3SG	CONTR	

‘And we put that away so that the serum separates.’  
(Stapert 2013: 302)

As pointed out in Section 1, Khanty, based on the Russian model, employs relative pronouns (form-identical to interrogative pronouns) in correlatives and more recently also in post-nominal finite RCs. These relative pronouns, however, are ungrammatical in post-nominal participles (18) as well as in pre-nominal participles (19):<sup>15</sup>

<sup>15</sup> The pattern in (19) conforms to the strong typological generalization that pre-nominal RCs have no relative pronouns (Downing 1978: 392–394; Keenan 1985: 149; De Vries 2002: 37, 131; Kayne 1994: 93; Andrews 2007: 218).

- (18) \**Qât-ət*, [*mətapi-t mąqi aŋki'eł'em-nə wär-əm*], *wəle*  
 house-PL which-PL long.ago grandfather-1SG-LOC do-PST.PTCP already  
*rąqən-tayə jəy-O-ət*.  
 crumble-INF start-PST-3PL  
 ‘The houses that my grandfather built a long time ago have already started  
 to crumble.’ (Yg.)
- (19) [(*\*Mətapi*) *tərm-əm*] *litöt mətqätəl Ivan-nə*  
 which consume-PST.PTCP food yesterday Ivan-LOC  
*wär-O-i*.  
 do-PST-PASS.3SG  
 ‘The food that has been consumed was made yesterday by Ivan.’ (Yg.)

Sentences like (18) have grammatical alternatives that involve a pre-nominal participle (without a relative pronoun, cf. [20a]) or a post-nominal finite RC (with the relative pronoun retained), as in (20b):

- (20) a. *T'u* [*mąqi aŋki'eł'em wär-əm*] *qât-ət wəle*  
 that long.ago grandfather-1SG do-PST.PTCP house-PL already  
*rąqən-tayə jəy-O-ət*.  
 crumble-INF start-PST-3PL  
 ‘Those houses that my grandfather built a long time ago have already  
 started to crumble.’ (Yg.)
- b. *Qât-ət*, [*mətapi-t mąqi aŋki'eł'em-nə wär-O-at*],  
 house-PL which-PL long.ago grandfather-1SG-LOC do-PST-PASS.3PL  
*wəle rąqən-tayə jəy-O-ət*.  
 already crumble-INF start-PST-3PL  
 ‘The houses that my grandfather built a long time ago have already  
 started to crumble.’ (Yg.)

Khanty participles are thus not undergoing the type of structural change that Dolgan purposive participles did: they do not admit a sentence connector that is typical of finite clauses.

To summarize, Khanty participles can be placed in post-nominal position, but this remains a marked word order. At the same time, the relevant examples are not just “Russian sentences spoken with Khanty words”: neither the morphological dependency between N and the post-nominal participle, nor the participle-internal word order is copied from Russian. There are no other structural changes to the participle either. The only parameter that is affected by the change is the order of N and the participle.

### 3 Post-nominal participles with *ṭu*

In Section 2 we saw that interrogative-based relative pronouns cannot appear in post-nominal participial RCs. Csepregi (2012), however, reports one example in which such a participle is introduced by *ṭu*, a pronoun form-identical to the distal demonstrative ‘that’. The relevant example, given in (4), is repeated in (21):

- (21) *Pyrəš*   *iki*,    [***ṭu***   *liw*           *äwi-t-at*   *ma*  
 old   man    that  he           daughter-3SG-INS/FIN I  
*nămlayt-əyət-t-am*],     *qunta pə*    *mantem*   *äwi-t*  
 think-FREQ-PRS.PTCP-1SG when PART I.DAT    daughter-3SG  
*əntə mə-t-0*                (*mə-t-təy*).  
 NEG give-PRS-3SG   (give-PRS-SG<3SG)  
 ‘The old man whose daughter I keep thinking about will never give me his daughter.’  
 (Csepregi 2012: 87)

Csepregi calls *ṭu* a ‘proto-relative pronoun’, but it remains unclear exactly what this means. In this section we aim to determine how to best characterize *ṭu* in post-nominal participial RCs. After providing a background to Khanty demonstratives in general and to the use of *ṭu* in particular, we will discuss five logically possible structures for (21) and distil the underlying structure.

Let us begin with a brief description of how *ṭu* fits into the system of Khanty demonstratives. Khanty makes a formal distinction between demonstratives that modify a noun (adnominal demonstratives) and demonstratives that stand in for a whole noun phrase (pro-nominal demonstratives); the latter are morphologically more complex than the former. Within both the adnominal and the pronominal series, demonstratives show an opposition between proximal vs. distal as well as between the referent being present or visible vs. not being present or visible in the context. This is summarized in Tables 1 and 2.

**Table 1:** Khanty adnominal demonstratives.

	Present or visible in context	Not present or visible in context
distal	<i>ṭom</i>	<i>ṭu</i>
proximal	<i>tem</i>	<i>ṭi</i>

Table 2: Khanty pro-nominal demonstratives.

	Present or visible in context	Not present or visible in context
distal	<i>tõmi</i>	<i>tut</i>
proximal	<i>temi</i>	<i>tit</i>

As shown in Table 1, *tʉ* is an adnominal distal demonstrative which is used when the referent of the noun phrase is not present or visible in the context. While pronominal demonstratives inflect for the appropriate number and case, adnominal demonstratives remain uninflected. This means that in contrast to its pronominal counterpart *tut*, as in (22b), *tʉ* is invariant in form, as in (22a):

- (22) a. *Ma tʉ ryt-nat mən-t-əm.*  
 I that boat-INS/COM go-PRS-1SG  
 ‘I’ll go by that boat.’ (Yg.)  
 b. *Ma tut-nat mən-t-əm.*  
 I that-INS/COM go-PRS-1SG  
 ‘I’ll go by that.’ (Yg.)

In addition to its function as a distal demonstrative, *tʉ* is also used as an emphatic discourse particle, meaning ‘alas, behold, lo, then’ (Csepregi 2001 [1998]: 23). This is illustrated in (23):

- (23) *Ma tʉ mən-t-əm.*  
 I PART go-PRS-1SG  
 ‘Well, I’ll go then.’ (Yg.)

With this background in place, let us now turn to the analysis of (21). Two structures can be excluded immediately. Firstly, *tʉ* cannot form a constituent with the nominal that follows it, as personal pronouns cannot be modified by demonstratives. Thus the structure in (24), with *tʉ* being an adnominal modifier of *tšiw*, can be safely put aside:

- (24) *pyrəš iki, [PTCP [NP tʉ tšiw] äwi-t-at ma*  
 old man that he daughter-3SG-INS/FIN I  
*nämlayt-əyəł-t-am]*  
 think-FREQ-PRS.PTCP-1SG  
 ‘the old man whose daughter I keep thinking about’

Secondly, it also cannot be the case that in (21) *t'u* is the pronominal head of the participial RC and also an appositive modifier of ‘old man’ (‘old man, that, whose daughter I am thinking of’). We have seen that *t'u* is strictly an adnominal demonstrative. As it has no pronominal use, it cannot be the pronominal head of a participial RC. Thus (25), too, is excluded as a plausible analysis:

- (25) *pyrəš iki*, [<sub>NP</sub> ***t'u*** [<sub>PTCP</sub> *liw äwi-t-at* *ma*  
 old man that he daughter-3SG-INS/FIN I  
*nāmlayt-əyəł-t-am*]]  
 think-FREQ-PRS.PTCP-1SG  
 ‘the old man, that, whose daughter I keep thinking about’

Having excluded (24) and (25) as possible parses of (21), three possibilities remain that require closer scrutiny. The first is that in (21) *t'u* is an adnominal demonstrative modifier of ‘old man’, exceptionally occurring in post-nominal position. In this case *t'u* is string-adjacent to the participle but is structurally not part of it, as in (26):

- (26) [*pyrəš iki*, [<sub>Dem</sub> ***t'u***]] [<sub>PTCP</sub> *liw äwi-t-at* *ma*  
 old man that he daughter-3SG-INS/FIN I  
*nāmlayt-əyəł-t-am*]  
 think-FREQ-PRS.PTCP-1SG  
 ‘that old man whose daughter I keep thinking about’

The second possibility is that in (21) *t'u* is a discourse particle, as in (23), rather than a demonstrative.<sup>16</sup> Finally, it may be the case that *t'u* in (21) is structurally internal to the participle, functioning as a grammaticalized connective element (relative particle or pronoun), as in (27):

- (27) *pyrəš iki*, [<sub>PTCP</sub> [<sub>connective/rel.pron.</sub> ***t'u***] *liw äwi-t-at* *ma*  
 old man that he daughter-3SG-INS/FIN I  
*nāmlayt-əyəł-t-am*]  
 think-FREQ-PRS.PTCP-1SG  
 ‘the old man whose daughter I keep thinking about’

Before we investigate these possibilities in detail, it is worth asking whether it is plausible at all that in addition to its interrogative-based relative pronouns (used in correlatives and externally headed finite RCs), Khanty would also

<sup>16</sup> In this parse, *t'u* is unlikely to be internal to the participial RC, but nothing crucial hinges on this.



grammaticalize a demonstrative into a relative pronoun. The question is all the more relevant because Russian does not offer a model for this: all Russian relative pronouns are interrogative-based.

Forest Enets data show that, unexpected (or even unlikely) as it may be, this scenario can indeed materialize. Forest Enets is a moribund Northern Samoyedic language of Western Siberia. As a result of massive Russian-Enets bilingualism, relative pronouns have appeared in the language. But while the relative pronouns of correlatives are form-identical to interrogative pronouns (in line with the Russian pattern, cf. [28a]), Khanina and Shluinsky (2008) report that the relative pronoun of post-nominal finite RCs is form-identical to the Forest Enets demonstrative *čiki* ‘this’, as in (28b–c).<sup>17</sup> A language thus may use relative pronouns with different origins at the same time.

(28) Forest Enets

- a. *Myt' tony kan'i-ð [kunny kaθa n'e-j d'ir'i].*  
 I there leave-S:1SG where man child-1SG.NOM.SG live.S:3SG  
 ‘I went (there), where my son lives.’
- b. *En'či, [čiki br'igada-xan moθara], texe d'aða.*  
 person this.NOM brigade-LOC.SG work.S:3SG there go.S:3SG  
 ‘There goes a man that works in a herder-brigade.’
- c. *Ugulu-xon bočka-j [či-kun b'i noob'ira-ð]*  
 corner-LOC.SG butt-1SG.NOM.SG this-LOC water keep-S:1SG  
 `mokači.  
 stand.S:3SG  
 ‘In the corner there’s a cask where I keep water.’  
 (Khanina and Shluinsky 2008: 70–71)

With this in mind, let us now return to Khanty and the analysis of *tú* in (21). Several considerations suggest that *tú* is not a grammaticalized relative pronoun in this context, and so (27) is not the underlying structure. Firstly, relative pronouns are expected to be inflected for number (in agreement with the number of the external head), and they are expected to occur with the case or postposition that is appropriate for the gap-site in the RC. One might argue that since *tú* is not inflectable for number or case as a demonstrative (cf. [22]), it is not reasonable to expect that it

<sup>17</sup> For the sake of completeness, we note that Siegl (2013: 460–461) does not discuss this structure but has a few examples in which an externally headed post-nominal RCs is introduced by an interrogative-based relative pronoun. In these cases the verb of the RC is either finite or is marked by “a hither-to unknown element for which I have been unable to find an analysis so far” (p. 461).

would be inflectable for these categories as a relative pronoun either. Even if this is granted, however, a relative pronoun should be able to occur as a complement of a postposition. As shown in (29), this is not the case for *t̥u*:<sup>18</sup>

- (29) \**T̥u q̄āt-yən*, [*t̥u k̄üt-in-nə* *weli-t* *j̄āṅkił-tə*],  
 that house-DU that space.between-3DU-LOC reindeer-PL walk-PRS.PTCP  
*j̄əmat ənəl-yən*.  
 very big-DU  
 ‘The (two) houses between which reindeer are walking are very big.’ (Yg.)

In the grammatical version of (29) the personal pronoun *lin* ‘they(DU)’ appears between *t̥u* and the postposition. *Lin* serves as the complement of ‘between’, and *t̥u* is interpreted as a discourse particle. (On this use of *t̥u* cf. also [23].)

- (30) *T̥u q̄āt-yən*, [*t̥u lin k̄üt-in-nə* *weli-t*  
 that house-DU that they.DU space.between-3DU-LOC reindeer-PL  
*j̄āṅkił-tə*], *j̄əmat ənəl-yən*.  
 walk-PRS.PTCP very big-DU  
 ‘The (two) houses, alas, between which reindeer are walking, are very big.’ (Yg.)

Secondly, if *t̥u* had a relative pronoun use, then we could reasonably expect it to also occur in post-nominal finite RCs (as these RCs do admit interrogative-based relative pronouns, see Section 4). This expectation is not borne out, however: a finite RC introduced by *t̥u* is ungrammatical:

- (31) \**Q̄āt-ət*, [*t̥u māqi aṅkił’et’-em-nə* ***wār-0-ət***], *wəle*  
 house-PL that long.ago grandfather-1SG-LOC do-PST-PASS.3PL already  
*r̄āqən-tayə j̄əy-0-ət*.  
 crumble-INF begin-PST-3PL  
 ‘The houses built by my grandfather a long time ago have already begun to crumble.’ (Yg.)

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**18** Compare (29) with an example featuring the genuine (interrogative-based) relative pronoun *mətapi* ‘which’:

- (i) *T̥u q̄āt-yən*, [*mətapi k̄üt-in-nə* *wel-it* *j̄āṅkił-t-ət*],  
 that house-DU which space.between-3DU-LOC reindeer-PL walk-PRS-3PL  
*j̄əmat ənəl-yən*.  
 very big-DU  
 ‘The (two) houses between which reindeer are walking are very big.’ (Yg.)

(31) can be improved into an acceptable sentence by either changing the finite verb to a participle or by replacing *t̃u* with the interrogative-based relative pronoun *mətapi* ‘which’.

Relatedly, if *t̃u* was a grammaticalized relative pronoun in post-nominal participles, then we would expect that these participles can also admit interrogative-based relative pronouns. However, as pointed out in connection with (18), this is not possible. We are not aware of any language in which externally headed finite and non-finite RCs feature different types of relative pronouns (interrogative- vs. demonstrative-based),<sup>19</sup> therefore we take the ungrammaticality of (31) as evidence that *t̃u* has no relative pronoun use.<sup>20</sup>

Thirdly, when a post-nominal participle with *t̃u* is paraphrased with a pre-nominal participle, *t̃u* is retained pre-nominally, as in (32b):

- (32) a. *litot, t̃u t̃ərm-əm, m̃əlq̃ət̃əl Ivan-nə w̃är-0-i.*  
 food that finish-PST.PTCP yesterday Ivan-LOC do-PST-PASS.3SG  
 ‘The food that is already consumed was made by Ivan yesterday.’ (Yg.)  
 b. *T̃u t̃ərm-əm litot m̃əlq̃ət̃əl Ivan-nə w̃är-0-i.*  
 that finish-PST.PTCP food yesterday Ivan-LOC do-PST-PASS.3SG  
 ‘The food that is already consumed was made by Ivan yesterday.’ (Yg.)

If *t̃u* was a relative pronoun in post-nominal participles, then we would expect it to disappear from pre-nominal paraphrases as pre-nominal participles cross-linguistically very strongly resist relative pronouns (see fn. 15). The fact that *t̃u* is retained in (32b) (and is interpreted as an adnominal demonstrative modifying the head) shows that it is not a relative pronoun in (32a).

We conclude from the discussion above that *t̃u* appearing between the head noun and a post-nominal participle is not a relative pronoun (not even a proto-relative pronoun). This leaves us with two analytical possibilities: *t̃u* in this position is either a discourse particle or an adnominal modifier of the head noun exceptionally standing in post-nominal position.

In certain examples the discourse particle analysis is surely on the right track. In (33), for instance, the head noun has a (pre-nominal) proximal demonstrative modifier (*t̃i*). Therefore it could not have a post-nominal demonstrative

<sup>19</sup> Note that in Forest Enets the distribution of interrogative-based and demonstrative-based relative pronouns is sensitive to the position of the head: the former occur in correlatives, which are internally headed RCs, while the latter occur in externally headed RCs. Both types of Forest Enets RCs are finite, however.

<sup>20</sup> Sensitivity to the finiteness of the clause could be expected of a relative complementizer rather than a relative pronoun, but we see no evidence supporting the analysis of *t̃u* as a (non-finite) relative complementizer either.

modifier as well, especially not one that is distal and so yields a semantic clash with *tī*.

- (33) *T'i litōt, tū tarm-əm, mālqātəl Ivan-nə wär-O-i.*  
 this food that finish-PST.PTCP yesterday Ivan-LOC do-PST-PASS.3SG  
 'This food that has been eaten up was made yesterday by Ivan.' (Yg.)

In (34) the head noun is both preceded and followed by *tū*. We are not dealing with two demonstrative tokens here, either: discussion of (34) with our informant reveals that the first *tū* is interpreted as a demonstrative, while the second is a discourse particle.

- (34) *T'u litōt, tū tarm-əm, mālqātəl Ivan-nə wär-O-i.*  
 that food PART finish-PST.PTCP yesterday Ivan-LOC do-PST-PASS.3SG  
 'The food that is finished was made by Ivan yesterday.' (Yg.)

We have not found any cases in which post-nominal *tū* is interpreted as an adnominal demonstrative of the head, and there is no evidence that any other adnominal demonstrative could exceptionally be post-nominal either. In (35) *tī* appears between the head noun and the post-nominal participle, but according to our consultant, it is interpreted as an emphatic particle 'just now, behold' rather than as a demonstrative modifier of 'food'. (See also Csepregi 2001 [1998]: 23 on the use of *tī* as an emphatic particle.)

- (35) *litōt, tī tarm-əm, mālqātəl Ivan-nə wär-O-i.*  
 food PART finish-PST.PTCP yesterday Ivan-LOC do-PST-PASS.3SG  
 'The food that has just been finished was made yesterday by Ivan.' (Yg.)

In (36) the demonstratives *tom* 'that' and *tem* 'this' (both used when the referent is present or visible in the context) find themselves between the head and the post-nominal participle. While these orders are grammatical, the demonstratives crucially modify the agent of the participle rather than the head noun. It is thus not possible for any adnominal demonstrative to appear post-nominally.

- (36) *litōt, [[tom/tem Ivan-nə] wär-əm], jəmat kewrəm.*  
 food that/this Ivan-LOC do-PST.PTCP very hot  
 'The food that was made by this/that Ivan is really hot.' (Yg.)

We conclude that a *tū* that appears to introduce a post-nominal participle is neither a relative pronoun nor an adnominal demonstrative in exceptional post-

nominal position. This use involves the discourse particle *t̄u*. (21) and other examples like it are actually post-nominal participial RCs without a connecting element; that is, they instantiate the type discussed in Section 2.<sup>21</sup>

<sup>21</sup> That demonstrative pronouns have grammaticalized into relative pronouns and can now be used to introduce a (finite) relative clause has also been suggested for the closely related Vasyugan Khanty dialect by Filchenko (2007: 501–502), Potanina (2013: 79) and Potanina and Filchenko (2016: 35). However, all the examples used to illustrate this claim have other possible parses, too, which are, in our opinion, more plausible. Consider first (i), in which the demonstrative *tom* is taken to introduce the RC:

- (i) *Mān-nə onəl-l-əm, tom qu ju-wəl.*  
 1SG-LOC know-PRS-1SG that man walk-PRS.3SG  
 ‘I know the man who is walking there.’  
 (Filchenko 2007: 502, ex. 113; Potanina and Filchenko 2016: 35, ex. 13)

In (i) the demonstrative precedes the head noun *qu* ‘man’; thus the question arises how the demonstrative can be taken to be part of the RC in the first place. Filchenko (2007) and Potanina and Filchenko (2016) consider examples like (i) to be internally headed RCs; in their approach, the RC starts immediately after the matrix verb. As we have not had the opportunity to test this variety, we cannot directly (dis)confirm the existence of internally headed relatives in Vasyugan Khanty with absolute certainty. However, there are two reasons to seriously consider the more straightforward analysis of (i) and similar examples as externally headed RCs, whereby the demonstrative is not part of (and thus cannot possibly introduce) the embedded clause.

Firstly, none of the relevant examples show compellingly that the head is truly internal to the RC: in all cases, the head (and the demonstrative preceding it) are on the left edge of the RC. There are no examples in which RC-internal material (e.g. an adverb that can only be understood to modify the embedded verb) precedes the head; thus all the examples can be analysed as externally headed RCs. Secondly, Uralic languages are not known for having internally headed RCs. Therefore without strong evidence to the contrary (with RC-internal material visibly preceding the head), the default assumption should be that an RC with an overt head is an externally headed relative. Our conclusion is that the analysis of (i) as an externally headed RC is possible and, in light of the typology of Uralic RCs, also more plausible.

However, even if (i) was a true internally headed relative, it would not follow that the demonstrative is a kind of relativizer introducing the RC. This is because in all relevant examples the demonstrative is followed by a noun, and can be understood to be an ordinary demonstrative modifier of that noun. Consider (ii), in which it is not in doubt that the demonstrative is inside the RC (it follows the head noun *kōtʃəy* ‘knife’):

- (ii) *Mā wer-kās-im kōtʃəy ti ni öyö-wəl n’an’.*  
 1SG make-PST.3-1SG knife DET woman cut-PRS.3SG bread  
 (Filchenko 2007: 501; Potanina 2008: 83, Potanina 2013: 80; Potanina and Filchenko 2016: 35)

It is entirely plausible to treat *ti* as an adnominal modifier of *ni* ‘woman’, and this analysis is indeed advocated in Potanina (2008, 2013), where this example is translated as ‘I made the knife which that woman cuts the bread with’. On the other hand, Filchenko (2007) and Potanina

## 4 Post-nominal finite RCs with a lexical head

As mentioned in Csepregi (2012), post-nominal finite RCs have also started to appear in Surgut Khanty. In this section we look at post-nominal finite RCs with a lexical noun in the head position. (For brevity's sake, we shall call them 'lexically headed finite RCs'.) Other types of finite RCs will be the topic of Section 5.

### 4.1 Relative pronouns from interrogatives

Csepregi (2012) observes that post-nominal finite RCs feature interrogative-based relative pronouns. Compare (37) and (38): in the former *qõtnam* '(to) where' is an interrogative pronoun, while in the latter it is a relative pronoun.

- (37) *Lüw pyrij-O-ay, qõtnam löñ-in Miša män-t-O.*  
 (s)he ask-PST-3SG where-APPROX summer-LOC Misa go-PRS-3SG  
 '(S)he asked where Misa is going in the summer.'  
 (Csepregi 2015)

- (38) *Loqi, [qõtnam män män-t-aw], ar jâyam täj-at-O.*  
 place where-APPROX we go-PRS-1PL many forest have.got-PRS-3SG  
 'The place where we are going has many forests.'  
 (Csepregi 2012: 88)

The pattern in (38) is an innovation: as already mentioned before, the original relativization strategy in Khanty involves a gap (in a non-finite clause) without any relativizer (complementizer or relative pronoun).

The use of relative pronouns is characteristic of the languages of Europe (Lehmann 1984: 109; Comrie 1998; Haspelmath 1998, Haspelmath 2001; De Vries 2002: 173; Comrie and Kuteva 2013a, Comrie and Kuteva 2013b). The use of

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and Filchenko (2016) explicitly claim that here *ti* functions as a relativizer and provide the translations 'I made the knife which a woman cuts the bread with' and 'I made the knife which the woman cuts the bread with', respectively. A clear case where the demonstrative cannot be an adnominal modifier of the element following it (and so the relativizer interpretation is more or less forced) would be one where the post-DET element resists demonstrative modification (e.g. it is a personal pronoun or an adverb such as 'yesterday'). In the absence of such examples, the claim that demonstratives can function as relativizers remains contentious.

We conclude from this discussion that there is no strong evidence for either internally headed RCs or the existence of demonstratives functioning as relativizers in Vasyugan Khanty either.

interrogative-based relative pronouns is thus also largely confined to these languages. Outside of Europe such relative pronouns are mainly found in languages that have been in close contact with some European language, such as the native languages of the Americas in contact with Portuguese or Spanish (Heine and Kuteva 2003, Heine and Kuteva 2006: Ch. 6) or English (Mithun 2012), and the languages spoken in the former USSR in contact with Russian (Comrie 1981: 12–13, 34).

Among the Finno-Ugric languages, Hungarian, Finnish and Estonian employ externally headed RCs with a finite verb and a relative pronoun as an established, unmarked strategy (see É. Kiss [2002: Ch. 10]; Huhmarniemi and Brattico 2013; Sahkai and Tamm [to appear], respectively, on finite RCs in these languages). Unsurprisingly, these are the languages that have been in close contact with Indo-European languages (mainly Germanic and Slavic, but also Latin) for centuries (Laakso 2010). Hungarian and Estonian only have interrogative-based relative pronouns while in Finnish the most commonly used relative pronoun is not syncretic with an interrogative pronoun (though in some cases, more rarely, interrogative-based relative pronouns can also be used; Saara Huhmarniemi and Nikolett F. Gulyás, p.c.).

Taking into consideration these factors, as well as the fact that the RCs inherited from Proto-Uralic take the form in (1), there is no doubt that interrogative-based relative pronouns in Surgut Khanty are emerging under the influence of Russian. The syncretism between interrogative and relative pronouns in Russian is illustrated below:

(39) Russian

- a. **Kotor-yj**                    *mal'čik*                    *otkryl*    *dver'?*  
       which-M.SG.NOM boy(M).SG.NOM opened door.ACC  
       'Which boy opened the door?'
- b. *mal'čik*                    [**kotor-yj**]                    *otkryl*    *dver'*  
       boy(M).SG.NOM which-M.SG.NOM opened door.ACC  
       'the boy that opened the door'

The reanalysis of interrogative pronouns into relative pronouns in Khanty instantiates the process that Heine and Kuteva (2003, 2006) term 'replica grammaticalization' (cf. also Comrie's [1981] 'grammatical calquing'). That is, this is a case of contact-induced change where the relevant forms have existed in the language all along (in interrogatives, and later in correlatives) but are now being extended to a wider range of syntactic environments (namely to post-nominal finite relatives, which are externally headed RCs).

Heine and Kuteva (2003: 555) also discuss the phenomenon of ‘polysemy copying’, a process whereby a replica language does not make use of the grammaticalization process that took place in the model language. Instead, it uses a “shortcut by simply copying the initial and final stages of the [grammaticalization] process”. At first sight, this may seem to be a more appropriate characterization of the situation in Khanty: on this view, Khanty simply copies the interrogative-relative pronoun syncretism from Russian. We submit, however, that we are dealing with a genuine case of replica grammaticalization for two reasons.

Firstly, finite RCs with relative pronouns are at a much less advanced stage of grammaticalization in Khanty than in Russian. This situation holds of the relationship between the replica and the model language in replica grammaticalization but not in polysemy copying (Heine and Kuteva 2003: 556). In a picture prompt based spontaneous language production task, our consultant systematically only used pre-nominal participial RCs, and in the grammaticality judgment tasks, she characterized these as preferred, while she described post-nominal finite RCs with relative pronouns as ‘Russian-like’. At the same time, she spontaneously produced post-nominal finite RCs with relative pronouns when discussing the transcriptions of the picture prompt task (using these as alternative forms, elaborations or explanations of the transcribed participial RCs), and she also has very clear intuitions about what is and is not possible in finite RCs.<sup>22</sup> This is more compatible with an incipient stage of interrogative to relative reanalysis than full polysemy copying.

Secondly, we have seen that relative pronouns in Khanty first appeared in correlatives and are only now being extended to externally headed (finite) RCs. This corresponds to a commonly attested grammaticalization process in Indo-European languages, whereby interrogative-based relative pronouns first appear in headless RCs and only then spread to externally headed (finite, post-nominal) RCs (cf. Heine and Kuteva [2006: Ch. 6]; Gisborne and Truswell [2017] for illustration from the history of English). Surgut Khanty is thus following a cross-linguistically well documented path of language change. As the relevant Russian pronouns are used in interrogatives, correlatives, free relatives as well as externally headed finite RCs, a polysemy-copying analysis would predict that as a short-cut, interrogative-based relative pronouns appeared in all of these contexts in Khanty at the same time. This is clearly not the case: correlatives take precedence over finite RCs with an external head.

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<sup>22</sup> Nikolett F. Gulyás (p.c.) informs us that in her fieldwork sessions, the same speaker also produced these relative clauses in Russian-to-Khanty translation tasks.



## 4.2 Characteristics of relative pronouns

Khanty relative pronouns show connectivity effects. They bear the case assigned to the gap site in the RC and can function as complements of postpositions. Pronouns that can be inflected for number typically bear the same number marking as the head noun:<sup>23</sup>

- (40) a. (*T'u*) *wáč*, [**qõł** **sáyit** *imi jõwæt-0-0*], *jəmat ənəl*.  
 (that) town where from woman come-PST-3SG very big  
 ‘The town from which the woman came is very big.’ (Yg.)
- a'. (*T'u*) *qát-yən*, [**mətapi-yən** **küt-nə** *weli-t* *l'át-l'-ət*], *jəmat ənəl-yən*.  
 (that) house-DU which-DU space.between-LOC reindeer-PL  
 stand-PRS-PL very big-DU  
 ‘The houses between which reindeer stand are very big.’ (Yg.)
- b. *Qát-ət*, [**mətapi-t-nə** *əwəs jáy wál-t-ət*], *körəy-tayə jəy-0-ət*.  
 house-PL which-PL-LOC Nenets people live-PRS-PL fall.apart-INF  
 begin-PST-3PL  
 ‘The houses in which Nenets folk live have started to fall apart.’ (Yg.)

While Csepregi (2012: 87) characterized relative pronouns in finite RCs as “near-obligatory”, detailed work with her original informant revealed that relative pronouns in post-nominal finite RCs are not just near-obligatory but absolutely mandatory: omission leads to ungrammaticality (in the grammar of this informant, cf. below).

- (41) a. *Qát-ət*, [**\*(mətapi-t)** *máqi aŋkit'et'-em-nə* *wär-0-ət*], *wəte rãqən-tayə jəy-0-ət*.  
 house-PL which-PL long.ago grandfather-1SG -LOC  
 do-PST-PASS.3PL already crumble-INF begin-PST-3PL  
 ‘The houses that my grandfather built have already begun to crumble.’ (Yg.)

<sup>23</sup> In some cases the informant was uncertain about whether a dual/plural head noun should be followed by a singular or a dual/plural relative pronoun, or explicitly allowed a plural head noun to be followed by a singular relative pronoun (while using plural agreement on the finite verb). With a newly emerging category in a language, such occasional uncertainty is not surprising.

- b. *Imi*, [*\*(mətapi) málqätəl jänmas-ət pos-0-0*],  
 woman which yesterday dress-PL wash-PST-3SG  
*tem qätəl-nə nyñt-ət-0*.  
 this day-LOC rest-PRS-3SG  
 ‘The woman that washed the clothes yesterday is resting today.’ (Yg.)
- c. *N’ewrəm*, [*\*(mətapi) podarok saryana punč-ət-0*], *sar*  
 child, which gift quickly open-PRS-3SG at.once  
*nöq nälk-ət-0*.  
 up rejoice-PRS-3SG  
 ‘The child that opens the gift quickly is rejoicing.’ (Yg.)

The grammar of our Tromagan Khanty informant, on the other hand, is significantly different in this regard: in her grammar headed RCs can be finite but they do not admit relative pronouns.<sup>24</sup> The grammatical judgments are thus exactly reversed: finite RCs without a relativizer are acceptable:<sup>25</sup>

- (42) a. *Qät-ət [mäqi aŋki’e’-em wär-0-0] wäle rāqən-tayə*  
 house-PL long.ago grandfather-1SG do-PST-3SG already crumble-INF  
*jəy-0-ət*.  
 become-PST-3PL  
 ‘The houses that my grandfather built a long time ago already began to crumble.’ (Tra.)
- b. *Łitöt [mälqätəl Ivan ná’ələkkə wär-0-0] wäle nöq*  
 food yesterday Ivan slowly do-PST-3SG already up  
*ñiw-0-i*.  
 eat-PST-PASS.3SG  
 ‘The food that yesterday Ivan slowly made has already been eaten up.’ (Tra.)<sup>26</sup>

<sup>24</sup> The acceptability of new syntactic constructions, like the ones examined here, is often subject to inter-speaker variation even in non-endangered languages without much dialectal variation. Some variation between the judgements of our Yugan and Tromagan consultants is therefore to be expected. While exploring the full range or variation between all subdialects of Surgut Khanty (including the Pim and Again dialects) is beyond the scope of this paper, our findings can serve as a basis for such investigations in the future.

<sup>25</sup> We note here that her grammar does have interrogative-based relative pronouns, but they are confined to correlative clauses, which are a type of internally headed RC. We return to this point in Section 5.

<sup>26</sup> It is important that (42a) and (42b) cannot be analysed as two juxtaposed clauses (‘The houses, my grandfather made [them] a long time ago. They have already collapsed’ and ‘The food, Ivan made [it] yesterday. It has been eaten up’). In Khanty the subject must be more topical than the object. If the object is to precede the subject, then the clause must be

The way our consultants' grammars are different may reflect the correlation between age stratification and Russian impact on Khanty grammar. The Yugan informant is relatively younger and relatedly, her grammar is more affected; it follows the Russian pattern more closely than the grammar of the Tromagan informant (Russian does not allow post-nominal finite RCs without a relative pronoun).<sup>27</sup>

### 4.3 The inventory of relative pronouns

Csepregi (2012) showed that the interrogative pronouns *mətapi* 'which', *qōt* 'where (locative)' and *qōtnam* 'where (directional)' have a relative pronoun use as well (see [40b], [40a] and [38]). However, as her main focus was the structure of pre-nominal participles, she did not investigate whether the relative pronoun use extends to all interrogative pronouns or only a subset of them.

Additional interrogative pronouns for which we confirmed a relative pronoun use are *qōlnə* 'how' and *quntə* 'when':

- (43) a. (*T'u*) *ur*, [qōlnə litōt nūŋ-nə wār-0-i], əntə rupak.  
 (that) method how food you-LOC do-PST-PASS.3SG not difficult  
 'The way you made food is not difficult.' (Yg.)
- b. *T'u* āl-nə, [quntə ma sām-a pit-0-əm], lāñt ar.  
 that year-LOC when I eye-LAT fall-PST-1SG snow lot  
 'In the year when I was born (lit. fell into eye) there was a lot of snow.' (Yg.)

It turns out to be the case, however, that not all interrogative pronouns allow a relative pronoun use. For instance, *qōjayi* 'who' cannot appear in externally headed finite RCs; a head noun with a [+ human] referent must be linked to the RC with *metapi* 'which':

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passivized, promoting the object to subject role and demoting the subject to an (instrumental marked) adjunct (Nikolaeva 1999). The verb *wār* 'do' in (41a) and (42b), however, is active, and the subject is case-marked as in an active clause. Thus the string starting with 'house/food' and ending with *wār* cannot be a self-standing matrix clause; it is an externally headed RC construction.

<sup>27</sup> Potanina (2013) found post-nominal finite RCs without relative pronouns in the closely related Vasyugan Khanty dialect as well. (In our opinion, the Vakh-Vasyugan Khanty RCs which Filchenko 2007 characterizes as "internally headed" or "introduced by a demonstrative" also instantiate this type, in fact; see fn. 21.) Vasyugan Khanty has fewer than ten proficient speakers, all of whom are above the age of 60 (Potanina and Filchenko 2016: 27); they thus belong to the same age bracket as our Tromagan informant.

- (44) *Őnəltətə ne, [mətapi/\*qəjayi Surgut-nə qəntək köl*  
 teaching woman which/who Surgut-LOC Khanty language  
*őnəltə-t-0], tem qətəl-nə nyńt-əl-0.*  
 teach-PRS-3SG this day-LOC rest-PRS-3SG.  
 ‘The woman teacher who teaches Khanty in Surgut is resting today.’ (Yg.)

Externally headed finite RCs do not allow a relative pronoun use for *müwəli* ‘what’ either:

- (45) *Qət, [mətapi/\*müwəli məqi aŋkiʔet-em-nə wär-0-i],*  
 house which/what long.ago grandfather-1SG-LOC do-PST-PASS.3SG  
*râqən-tayə jəy-0-0.*  
 crumble-INF begin-PST-3SG  
 ‘The house that was made by my grandfather a long time ago began to crumble.’ (Yg.)<sup>28</sup>

In this respect, too, Khanty follows the Russian pattern. Russian *kto* ‘who’ cannot be used as a relative pronoun in lexically headed RCs either; *kotoryj* ‘which’ appears instead (Gołab and Friedman 1972; Kholodilova 2017). Russian *čto* ‘what’ is also dispreferred in headed RCs; *kotoryj* ‘which’ is used as the unmarked relative pronoun in this case, too:

- (46) Russian  
 a. *Ja znaju ženščin-u [kotor-aja / \*kto sterala*  
 I know woman(F)-SG.ACC which-F.SG.NOM / who.NOM washed  
*odeždu].*  
 clothes  
 ‘I know the woman who washed the clothes.’

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**28** The interrogative *qətti* ‘where.be’ cannot function as a relativizer in headed RCs either; the relevant contexts contain *qol* ‘where’:

- (i) *Wənt, [qol at-em-nə weli-t məqi ət-nə katl-0-at],*  
 forest where father-1SG-LOC reindeer-PL last year-LOC catch-PST-PASS.3PL  
*qəwən əntem.*  
 far NEG.EX  
 ‘The forest where my father caught the reindeer last year is not far away.’ (Yg.)

While this is clearly related to the meaning of *qətti*, no semantically based explanation is available for the fact that *qəjayi* ‘who’ and *müwəli* ‘what’ are excluded from externally headed RCs.

- b. *Ja čitaju knig-u, [kotor-uju / ?čto ty*  
 I read.PRS book(F)-SG.ACC which-F.SG.ACC / what.ACC you.2SG  
*napisal].*  
 write.PFV.PST  
 ‘I’m reading the book that you wrote.’

The interrogative pronoun *müwat*, meaning both ‘why’ (reason) and ‘for what/which’ (purpose), was also rejected by our consultant in lexically headed finite RCs; this pronoun, too, was replaced by *metapi* ‘which’:

- (47) a. *\*(T'u) wăy, [müwat tu imi jöwət-0-0], os mantem*  
 (that) money for.which that woman come-PST-3SG also I.DAT  
*mäs-t-0.*  
 need-PRS-3SG  
 ‘I also need the money that this woman came for.’ (Yg.)  
 b. *(T'u) wăy, [metapi pətan / metapi-nat tu imi*  
 (that) money which for / which-INS/COM that woman  
*jöwət-0-0], os mantem mäs-t-0.*  
 come-PST-3SG also I.DAT need-PRS-3SG  
 ‘I also need the money that this woman came for.’ (Yg.)

This is not surprising in light of the fact that in Russian, too, similar sentences feature *kotorij* ‘which’ rather than *počemu* ‘why’ (the latter is allowed only colloquially with *pričina* ‘reason’ as the head noun):

- (48) Russian  
*Ženščin-a, iz\_za kotoroj / \*počemu on*  
 woman(F)-SG.NOM because\_of which.F.SG.GEN / why he.NOM  
*prišel.*  
 came.PFV  
 ‘the woman because of whom he has come’

There is thus a high level of parallelism between interrogative-based relative pronouns in Russian and Khanty.<sup>29</sup>

<sup>29</sup> It is interesting to note here that while Hungarian also very likely developed its finite postnominal RCs with interrogative-based relative pronouns under Slavic influence, this language has, over time, extended the relative pronoun use to all interrogative pronouns, including *ki* ‘who’ (rarely also ‘what’). The relative pronoun use of *ki* is already attested in the earliest written source, the Funeral Speech and Prayer from ca. 1195.

#### 4.4 The position of the relative pronoun

In languages that have them, relative pronouns are normally fronted and appear at the left edge of the clause; typically, no RC-internal material can precede a relative pronoun in an RC with an external head.<sup>30</sup>

(49) *the boy who left yesterday* / \**the boy yesterday who left*

There are some exceptions to this generalization, however. A complementizer can precede the relative pronoun in Old and Middle Hungarian quite generally (Bacskai-Atkari and Dékány 2015), and in modern Hungarian this is possible in comparative relatives (Bacskai-Atkari 2018), see (50). The complementizer-relative pronoun order is also allowed in Nez Perce (Sahaptian, Northwestern United States, cf. Deal [2016]).

- (50) a. *tyzen\_keth themen anyalth [hogy kyk engem megh*  
 twelve legion angel.ACC that who.PL me PRT  
*oltalmaznak]*  
 protect.SBJV.3PL  
 ‘twelve legions of angels who would protect me’  
 (Old Hungarian, Apoc Codex 167, late 15th c. to early 16th c.)
- b. *Több almát vettem, [mint amennyit kértél].*  
 more apple.ACC buy.PST.1SG than REL.how.much.ACC ask.PST.2SG  
 ‘I bought more apples than you asked for.’ (Modern Hungarian)

Phrasal RC-internal material can precede the relative pronoun in Udmurt (Yulia Sheshilova, p.c), and sporadically also in Old Hungarian (51):

- (51) a. *Pijaš [Ižkaryšen kudinyz tynad adžiškono] kotčyšjosty*  
 boy Izhevsk.EGR which.INS/COM 2SG.GEN see.PTCP cat.PL.ACC  
*jarate.*  
 like.3SG  
 ‘The boy whom you have to meet in Izhevsk likes cats.’ (Udmurt)

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<sup>30</sup> Correlatives are again different in this respect: their relative pronoun can be preceded by RC-internal elements in various unrelated languages such as Hungarian (Bacskai-Atkari and Dékány 2015) or Old Hittite (Probert 2006).

- b. *kj latoth ojl zerelmeth [zɔrnjw halaal kjth meg*  
 who see.PST.3SG such love.ACC horrible death what.ACC PRT  
*gjozoth]*  
 defeat.PST.3SG  
 ‘Who saw love that was defeated by horrible death?’  
 (Old Hungarian, Czech Codex 62, AD 1513)

This word order even occurs in colloquial Russian (Oleg Belyaev, Maria Polinsky, Irina Burukina, p.c.), both with frame-setting adverbs and arguments in the RC-initial position. This is acceptable in the spoken language if the preposed constituent is focussed/stressed:

- (52) Russian  
 a. *ženščin-a [v Moskve kotor-aja cvety prodavala]*  
 woman(F)-SG.NOM in Moscow that-F.SG.NOM flowers.ACC sold  
 ‘the woman that sold flowers in MOSCOW’  
 b. *ženščin-a [cvety kotor-aja prodavala]*  
 woman(F)-SG.NOM flowers.ACC that-F.SG.NOM sold  
 ‘the woman that sold FLOWERS’

The most neutral and highly preferred order in Khanty is one in which the relative pronoun stands at the left edge of the relative clause, regardless of whether the RC is active or passive. Neither frame-setting (i. e. temporal or place) adverbials nor verbal arguments can precede the relative pronoun:

- (53) a. *Qât, [mätapi mâqi aŋkitet-em wär-0-0], jəmat ənət.*  
 house which long.ago grandfather-1SG do-PST-3SG very big.  
 ‘The house that my grandfather made a long time ago is really big.’ (Yg.)  
 b. *\*Qât, [mâqi mätapi aŋkitet-em wär-0-0], jəmat ənət.*  
 house long.ago which grandfather-1SG do-PST-3SG very big.  
 ‘The house that my grandfather made a long time ago is really big.’ (Yg.)

However, RC-internal material can marginally precede the relative pronoun if it receives a contrastive interpretation, similarly to the Russian pattern in (52). Contrast somewhat increases the acceptability of a sentence with a preposed argument (54a), adjunct (54b) or frame-setting adverb (54c), but these orders remain far from fully acceptable. This is without doubt related to the fact that Khanty in general does not have a left-peripheral focus position: focussed constituents are normally placed in the immediately preverbal position.

- (54) a. ??*Imi*, [*nüŋat mətapi wuj-0-0*], *ryt-nat jöwət-0-0*.  
 woman you.SG.ACC which see-PST-3SG boat-INS/COM come-PST-3SG  
 ‘The woman who saw you arrived by boat.’ (Yg.)
- b. ??*Wönt*, [*aʔ-em-nə qōł weli-t katł-0-at*],  
 forest father-1SG-LOC where reindeer-PL catch-PST-PASS.3PL  
*qōwən əntem*.  
 far NEG.EX  
 ‘The forest in which my father caught the reindeer is not far away.’ (Yg.)
- c. ??*Litöt*, [*mätqätəl mətapi aŋk-em-nə wär-0-i*], *jəmat*  
 food yesterday which mother-1SG-LOC do-PST-PASS.3SG very  
*äpləŋ wōł-0*.  
 delicious be.PST-3SG  
 ‘The food that was made yesterday by my mother was very delicious.’ (Yg.)

These orders in Khanty also require the relative clause to be as short as possible. Beyond the preposed constituent, the relative pronoun and the verb with its arguments, nothing else should appear in them. If further material, e.g. adjuncts, are inserted, the clause reverts back to fully ungrammatical (according to our consultant, they become too complicated to understand).

While RC-internal material can precede the relative pronoun only under the restricted circumstances described above, the head and the relative pronoun can easily be separated by main-clause material. That is, the RC can be extraposed (to the end of the matrix clause), as in (55b):

- (55) a. *Qōwən əntem ʔu wönt*, [*qōł aʔ-em-nə weli-t*  
 far NEG.EX that forest where father-1SG-LOC reindeer-PL  
*katł-0-at*].  
 catch-PST-3PL  
 ‘The forest where the reindeer were caught by my father is not far away.’ (Yg.)
- b. *Tʔu wönt qōwən əntem*, [*qōł aʔ-em-nə weli-t*  
 that forest far NEG.EX where father-1SG-LOC reindeer-PL  
*katł-0-at*].  
 catch-PST-3PL  
 ‘That forest where the reindeer were caught by my father is not far away.’ (Yg.)



## 4.5 Interim summary

Let us summarize the results of Section 4. Lexically headed finite RCs and their relative pronouns in Surgut Khanty have emerged under the influence of Russian by way of contact-induced grammaticalization rather than polysemy copying. In the relevant Khanty RCs we find speaker-variation in the use of interrogative-based relative pronouns. In the grammar that allows them, relative pronouns are highly preferred in the very first position in the RC, though the RC need not be adjacent to its head. Interrogative pronouns that have no relative pronoun use in Russian post-nominal finite RCs have no such use in Khanty either.

## 5 Other finite RCs and relative pronouns

In Section 4.2 we saw that there is speaker variation in the use of interrogative-based relative pronouns in lexically headed finite RCs. While the older consultant rejects relative pronouns in this environment (42), the relatively younger one requires them (41). But even in the grammar of the latter speaker, *qōjayi* ‘who’ and *müwəli* ‘what’ have no relative pronoun use in these RCs; the head noun in the relevant examples is referred back to with *mətapı* ‘which’. This is repeated here for the reader’s convenience:

- (56) a. *ōnəltətə ne, [mətapı / \*qōjayı Surgut-nə qāntək köł*  
 teaching woman which / who Surgut-LOC Khanty language  
*ōnəltə-t-0]*  
 teach-PRS-3SG  
 ‘the teacher who teaches Khanty in Surgut’ (Yg.)
- b. *qāt, [mətapı / \*müwəli məqi aŋkiʔet-em-nə*  
 house which / what long.ago grandfather-1SG-LOC  
*wär-0-i]*  
 do-PST-PASS.3SG  
 ‘the house that was made by my grandfather a long time ago’ (Yg.)

Lexically headed finite RCs, however, appear to be more conservative in their use of relative pronouns than other types of finite RCs.

## 5.1 Correlatives

As already mentioned, correlatives are a subtype of internally headed relatives (De Vries 2005), and in many (though not all) languages, including Khanty, this internal head is accompanied by a relative pronoun. Importantly, these RCs admit relative pronouns even in the older consultant's grammar, in which no relative pronoun is allowed in externally headed finite RCs. Moreover, in correlatives even *qōjayi* 'who' and *müwəli* 'what' can function as relative pronouns. (57a) was provided by the speaker who rejects relative pronouns in externally headed finite RCs in general, while (57b–c) are from the consultant who uses relative pronouns (but not *qōjayi* 'who' or *müwəli* 'what') in externally headed finite RCs:

- (57) a. [**Qōjayi** *mālqātət jänas-ət pos-0-0*], *tu qo nyñt-ət-0*.  
 who yesterday dress-PL wash-PST-3SG that man rest-PRS-3SG  
 'The man who washed clothes yesterday is resting today.' (Tra.)  
 (Lit.: Who washed clothes yesterday, that man is resting today.)
- b. [**Qōjayi** *mālqātət jänas pos-0-0*], *tu qo tem qātət-nə nyñt-ət-0*.  
 who yesterday dress wash-PST-3SG that man this day-LOC  
 rest-PRS-3SG  
 'The man who washed clothes yesterday is resting today.' (Yg.)
- c. [**Müwəli** *pəsan owti-ji ylə körəy-0-0*], *tut ilə morij-0-əy*.  
 what table top-ABL down fall-PST-3SG, that away  
 break-PST-3SG  
 'The thing that fell off of the table broke.' (Yg.)

Synchronically, then, correlatives allow a wider range of relative pronouns than externally headed finite RCs. This fact, we suggest, is related to the diachronic fact that relative pronouns first appeared in correlatives, and only then spread to externally headed finite RCs (see Section 1). (58) serves both as a diachronic and a synchronic cline for finite RCs:

- (58) (interrogative >) correlative > externally headed finite relative

Diachronically, at the stage where Khanty has externally headed finite relatives, it also already has correlatives. Synchronically, variation between speakers as well as between relative pronouns (*qōjayi* 'who' and *müwəli* 'what' vs. the others) shows that if a relative pronoun can be used in externally headed finite relatives, then so it can in correlatives.

## 5.2 Free relatives and light-headed relatives

In this section we turn to two additional types of finite RCs, for which data are only available from the Yugan consultant, whose grammar requires relative pronouns in lexically headed finite RCs. Free RCs are headless relatives with the internal structure of a relative clause and the external distribution of a noun, such as English *I eat [what(ever) you cook]* or *[What(ever) you cooked] was delicious*. It turns out that in addition to correlatives, these RCs also admit *qǒjayi* ‘who’ and *müwəli* ‘what’ as relative pronouns:

- (59) a. *Ma wu-l-em, qǒjayi nüñ lǎŋq-l-ən.*  
 I know-PRS-SG<1SG who you.SG love-PRS-2SG  
 ‘I know (the person) who you love.’ (Yg.)  
 b. *Ma nǒq liw-0-em, müwəli nüñ wär-0-ən.*  
 I up eat-PST-SG<1SG what you.SG do-PST-2SG  
 ‘I ate up what you cooked.’ (Yg.)

Moreover, *qǒjayi* ‘who’ can be used as a relative pronoun in externally headed finite RCs as well, as long as the head is a pronoun rather than a lexical noun.<sup>31</sup> Such RCs are called ‘false free relatives’ (De Vries 2002) or ‘light-headed relatives’ (Citko 2004):

- (60) a. *T’ut, [qǒjǎyi mǎtqǎtəl tǎyǎ jǒwət-0-0], qǒw mǎrǎ t’et*  
 that who yesterday here come-PST-3SG long time here  
*qyt’-əl-0.*  
 stay-PRS-3SG  
 ‘The one who came here yesterday will stay here for a long time.’ (Yg.)  
 b. *Küč qǒjayi pǎ, [qǒjǎyi mantema mǎjəl-tǎyǎ jǒwət-0-0],*  
 any who PART who I.LAT visit-INF come-PST-3SG  
*mant podarok-at tuw-0-0.*  
 I.ACC present-INS/FIN bring-PST-3SG  
 ‘Anybody who came to visit me brought me (lit. brought me with) a present.’ (Yg.)

This even extends to syntactically complex pronouns built on a semantically light lexical noun such as ‘people’ or ‘man’, cf. *əjnam jay* (lit. all people)

<sup>31</sup> We suspect that this also holds for *müwəli* ‘what’, but here we do not have the data that could (dis)confirm this hypothesis.

‘everybody’, *əj mətə qo* (lit. one some man) ‘somebody’ and *əj mətə qo pə* (lit. one some man PRT) ‘nobody’.<sup>32</sup>

- (61) a. *əj mətə qo pə*, [*qəjyayi Surgut-nə wāt-l-0*], *mant*  
 one some man PRT who Surgut-LOC live-PRS-3SG I.ACC  
*əntə wu-l-0*.  
 not know-PRS-3SG  
 ‘No one living in Surgut knows me.’ (Yg.)
- b. *əj mətə qo*, [*qəjyayi mālqātəl mantema mājəl-tayə*  
 one some man who yesterday I.LAT visit-INF  
*jəwət-0-0*], *mant jəmat wājəy-l-0-əy*.  
 come-PST-3SG I.ACC very offend-PST-3SG]  
 ‘Someone who came to visit me yesterday really offended me.’ (Yg.)
- c. *əjnam jay*, [*qəjyayi-t mantema mājəl-tayə jəwt-0-ət*],  
 all people who-PL I.LAT visit-INF come-PST-PL  
*mant podarok-at tuw-0-ət*.  
 1SG.ACC present-INS/FIN bring-PST-3PL  
 ‘All the people who came to visit me brought me presents.’ (Yg.)

Compare this with finite RCs headed by a lexical noun:

- (62) *Imi*, [*mətapi mālqātəl jəmas-ət pos-0-0*], *tem qātəl*  
 woman which yesterday clothes-PL wash-PST-3SG this day  
*nyñt-ət-0*.  
 rest-PRS-3SG  
 ‘The woman who washed the clothes yesterday will rest today.’ (Yg.)

This distribution again closely follows the pattern found in Russian: while Russian *kto* ‘who’ is not used as a relative pronoun in RCs with a lexical head (63), it is readily available in RCs with a pronominal head ([64a–a’], cf. also Kholodilova [2017]) and in relatives without an external head, i. e. free relatives (64b) and correlatives (64c) (see also Tsedryk [to appear]).

<sup>32</sup> It is not entirely clear to us whether *əjnam jay* in (61c) is a morphologically complex pronoun or a quantified lexical noun. This matter requires further research.

(63) Russian

*Ja znaju ženščin-u [kotor-aja / \*kto sterala*  
 I know woman(F)-SG.ACC that-F.SG.NOM / who.NOM washed  
*odeždu*].  
 clothes  
 ‘I know the woman who washed (the) clothes.’

(64) Russian

- a. *Ja znaju t-ogo [kto postiral odeždu]*.  
 I know that-M.SG.ACC who.NOM washed clothes  
 ‘I know the person (lit.: that) who washed (the) clothes.’
- a'. *Vs-e [kto eli moroženoj] zaboleti*.  
 all-PL.NOM who.NOM ate.PL ice-cream got.sick  
 ‘Everyone who ate ice-cream got sick.’
- b. *Ja priglašaju [k-ogo ty predlagaeš]*.  
 I invite who-ACC you.NOM suggest  
 ‘I invite whom you suggest.’
- c. *[Kto stiral odeždu utrom], (tot) otdyhaet*  
 who.NOM washed clothes in.the.morning that.M.SG.NOM rests  
*večerom*  
 in.the.evening  
 ‘S/he who washed clothes in the morning rests in the evening.’

Integrating the data in this section, (58) can be revised as (65). The revised cline ties in with the conclusions reached by Kholodilova (2017: 133) on the basis of variation among Slavic languages (although she does not look at free relatives):

(65) (interrogative >) correlative > free relative/light-headed relative > lexically headed finite relative

From the vantage point of Khanty, the cut-off point after correlatives can be motivated diachronically. In the first texts we only find correlatives but not free relatives or light-headed relatives. While these may be accidental gaps, it seems to us that at least light-headed (finite) relatives are very likely to have emerged later than correlatives. The cut-off point before lexically headed relatives is motivated in Khanty by synchronic variation among relative pronouns: while *qōl* ‘where’ (locative), *qōtnam* ‘where’ (directional), *qōtnə* ‘how’ and *quntə* ‘when’ have made it all the way to the right, *qōjayi* ‘who’ and *müwəli* ‘what’ have

stopped before this point.<sup>33</sup> This cut-off point receives additional support from cross-linguistic data beyond Khanty and Russian (or Slavic more generally). Lehmann (1984: Ch. 4.2) observes that if a language can employ an interrogative-based relative pronoun in lexically headed relatives, then so it can in light-headed relatives. As pointed out by Kholodilova (2017), “This suggests that light-headed relatives might constitute an intermediate diachronical stage between correlatives and post-nominal relative clauses”. While we find this to be eminently plausible, we do not, at this time, have data from Khanty to support this conjecture.<sup>34</sup>

## 6 Conclusion

This paper investigated the grammar of three new types of RCs in Surgut Khanty: the participial post-nominal RC with no connecting element, the participial post-nominal RC preceded by *tʉ* and the post-nominal finite RC. We have uncovered the following answers to the empirical questions posed in Section 1:

- Pre-nominal RCs have not changed; they do not admit interrogative-based relative pronouns (19). They can be preceded by *tʉ*, but *tʉ* is then an adnominal demonstrative modifier of the head rather than part of the participle (32).

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**33** Synchronic data from our Tromagan Khanty consultant would provide further evidence for either the cut-off point after correlatives (if her grammar does not admit relative pronouns in free and light-headed RCs), or the cut-off point before externally headed relatives (if she allows relative pronouns in free and light-headed RCs). These data, however, were not available to us at this time.

**34** It is possible that (65) can be further fine-tuned as (i):

- (i) (interrogative >) correlative > free relative > light-headed relative > lexically headed relative

Grammatically, free relatives are closer to correlatives (and interrogatives) than to light-headed and lexically headed (finite) relatives. Firstly, neither correlatives nor free relatives have an RC-external head while light-headed and lexically headed relatives do. Secondly, correlatives and free relatives allow multiple relative pronouns (see De Vries 2005 on correlatives; van Riemsdijk 2005: 357] on free relatives), just like questions allow multiple interrogative pronouns. Externally headed relatives, on the other hand, do not allow this (though see Kayne 2017 for a recent challenge to this claim). Thirdly, correlatives and free relatives both necessarily have maximalizing semantics, while externally headed post-nominal RCs may also be appositive and restrictive (see De Vries 2005 for discussion). It is thus clear that grammatically, the further to the right we are on the cline, the more dissimilarities from interrogatives are attested. Whether this more fine-grained cline manifests itself in Khanty diachronic change or synchronic variation among speakers or relative pronouns is a task we must leave for further research.

- Post-nominal non-finite RCs do not exhibit any structural changes with respect to pre-nominal RCs (10) and do not admit relative pronouns (18). The change only affects the order of the noun and the RC.
- The *tʉ* preceding post-nominal non-finite RCs shares no characteristics with interrogative-based relative pronouns (29–34). Rather, it is a discourse particle (and so it cannot act as a relative pronoun in finite RCs [31]).
- Relative pronouns are syncretic with interrogative pronouns. They only appear in finite RCs (18), and in lexically headed RCs they can only very marginally be preceded by other RC-internal material (54). All interrogative pronouns have a relative pronoun use in correlatives, free relatives and light-headed relatives, but not all of them can be used in lexically headed RCs (44–45).

The new RCs emerged in Surgut Khanty as a result of language contact with Russian. While the changes affecting RCs run deep, there are also clear limitations on grammatical convergence with the model language. These are most clearly observable in post-nominal participial RCs. While participles can now be placed in post-nominal position following the Russian pattern, neither the morphological dependency between the noun and the participle, nor the internal structure of the participle are taken over from Russian. This situation is best characterized as adaptation of an existing structure towards the Russian model.

In the case of externally headed finite RCs, on the other hand, we can observe wholesale borrowing of the Russian structure. This includes: (i) order with respect to the head noun, (ii) finite verb inflection, (iii) syncretism between interrogative and relative pronouns, (iv) high preference for the relative pronouns to be the first element in the RC, and (v) the exclusion of certain relative pronouns from lexically headed finite RCs but not from light-headed finite RCs, free relatives and correlatives. The only limitation here is that there is no borrowing of phonetic material: Khanty replicated the interrogative-relative syncretism of Russian with its own lexical resources. As relative pronouns first appeared in correlatives and were extended to externally headed RCs only later, we are faced here with an instance of replica grammaticalization rather than polysemy copying.

The fact that finite externally headed RCs were taken over from Russian “as is” while post-nominal participles still differ from their Russian counterparts in many respects, shows that changing already existing structures (in this case participles) is more difficult or slow in Khanty than adopting a completely new structure.

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## Abbreviations

APPROX = approximative case; CONTR = contrastive; EGR = egressive case; FREQ = frequentative; INS/COM = case syncretic between instrumental and comitative; INS/FIN = instructive-final case; LAT = lative case; NEG.EX = negative existential verb; PRT = particle; R = word borrowed from Russian; SG<3SG = objective conjugation (number of the object < person and number of the subject); SIM.CVB = simultaneous converb; || = prosodic break.

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