NIKITA MURAVYEV (Hamburg)

# THE EMERGENCE OF HIERARCHICAL ALIGNMENT IN NORTHERN KHANTY: A COMPARATIVE DIALECTAL CORPUS STUDY

**Abstract.** This study investigates the morphosyntactic coding of core arguments in Northern Khanty, with a focus on the use of active/passive voice and subjective/objective conjugation. The goal is to offer a more detailed understanding of the coding patterns across dialects. To achieve this, I analyze corpus data from four Northern Khanty dialects: Obdorsk, Shuryshkary, Tegi, and Kazym Khanty, using a dataset of 4,320 transitive clauses from available corpora. These clauses are manually annotated based on parameters of person, animacy, referential status, and topicality. The analysis reveals that Northern Khanty exhibits varying degrees of hierarchical alignment across its dialects, forming a gradient from north to south. Based on this observation, I argue that Northern Khanty historically transitioned from nominative/accusative alignment to symmetrical alignment, remnants of which can be observed in the Obdorsk dialect and in Eastern Khanty. It further evolved into hierarchical alignment, as seen in the present-day Kazym dialect.

**Keywords:** Uralic languages, Northern Khanty, hierarchical alignment, morphosyntax, passive, conjugation.

### Introduction

Hierarchical alignment is a well-documented argument coding strategy in which access to inflectional slots is determined by the relative ranking of core arguments on one or several prominence hierarchies, including most notably the person, animacy and definiteness hierarchy. This coding strategy is most typical of the indigenous languages of North America but is also found in other parts of the world, such as the Himalayas, Australia, and Siberia. However, little is known about their diachronic development due to the lack of earlier written sources. This study attempts to trace the historical development of an emergent hierarchical alignment in a Uralic language, Northern Khanty, by comparing synchronic corpus data from four different dialects.The main focus is on the parameters of person,

Received 27 September 2024, accepted 21 April 2025, available online 10 June 2025. © 2025 the Author. This is an Open Access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International Licence CC BY 4.0 (http://creativecommons.org/licenses/by/4.0). animacy, definiteness, and topicality. Data from Khanty dialects show that the passive aligns more strongly with inverse contexts than the active does with direct contexts, suggesting that the direct alignment of the active is a product of a more recent development.

## 1. Argument coding in Northern Khanty

Northern Khanty, along with other Khanty varieties (Eastern, Southern) and Mansi, belongs to the Ob-Ugric branch of the Uralic family of languages. It is spoken in the western part of North Siberia, in the Khanty-Mansi and Yamalo-Nenets Districts, by approximately 9,600 speakers (2010 census). Northern dialects form a continuum from north to south, exhibiting notable variety in phonology, morphology, and lexicon. In the north, Northern Khanty is in close contact with Tundra Nenets, while in the south, it is surrounded by Mansi, Forest Nenets, and Selkup. As stated in Nikolaeva 1999, nominal case marking in active clauses in Northern Khanty follows neutral alignment with full noun phrases (1) and an accusative pattern with pronouns (2).

(1) pux an šukat-əs	(2) λuw mănti xătśə-s
boy cup break-PST[3SG]	he I.ACC hit-PST[3SG]
'A boy broke a cup' (Kaz., field data)	'He hit me' (Kaz., field data)

Two additional alternations, active/passive alternation and differential object indexing, introduce variation into the system. The choice between active and passive voice is claimed to be determined by information structure (Kulonen 1989; Nikolaeva 2001; Koshkareva 2002; Filchenko 2012; É. Kiss 2019), namely subjects are required to be topical. These descriptions use the understanding of sentence topic as whatever the proposition is about (Kuno 1972; Lambrecht 1994). Thus, in (3) below, while agent 'who' and *Juvan* are focused, while patient 'reindeer' is topical, resulting in its promotion to subject by means of passivization. Unlike in European languages, passive in Khanty allows for promoting not only the patient but also oblique arguments, e.g. recipient, beneficiary and location.

(3) kalan xoj-na we:l-s-a? – Juwan-na we:l-s-a reindeer who-LOC kill-PST-PASS[3SG] john-LOC kill-PST-PASS[3SG]
'Who killed the/a reindeer? – JOHN did' (Obd., Nikolaeva 2001 : 25)

Crucially, for Ob-Ugric languages, topics tend to form topic-chains, serving the thematic unity of a paragraph, in line with the notion of topic-continuity (Givón 1983).

In addition, Northern Khanty exhibits a differential object indexing system that marks topical P argument on the verb (4b) while leaving non-topical P unmarked (4a). Again, P argument is not necessarily patient/theme but can be of an oblique role, such as recipient or beneficiary. To explain the variation in indexing, Nikolaeva (2001), proposes a notion of secondary topic which refers to a direct object that is topical in addition to the subject, or the primary topic, see also (Koshkareva 2002; Dalrymple & Nikolaeva 2011; É. Kiss 2019), cf. earlier accounts in terms of definiteness (Steinitz 1950 : 74-75; Gulya 1970). Alternatively, the presence of object-indexing can be explained by the givenness of P in discourse (Däbritz 2020; Muravyev 2023).

- (4) a. *juwan pe:tra re:sk-əs / \*re:sk-əs-li* John Peter hit-PST.3sG hit-PST-3sG>sG {Whom did John hit?} 'John hit PETER' (Obd., Nikolaeva 2001 : 29)
  - b. *luw pe:tra re:sk-əs-li / \*re:sk-əs* he peter hit-PST-3SG>SG hit-PST.3SG {What did John do to Peter?} 'He HIT Peter' (Nikolaeva 2001 : 30)

Such topicality-based approach covers Northern Khanty is a significant improvement from earlier definiteness-based accounts but still has a number of shortcomings. First, considering topicality alone as an underlying parameter misses potential person, animacy, definiteness and other typical effects on argument coding cross-linguistically which could lead to overlooking some important variation in the data both within and across Northern Khanty varieties. Second, practical applications of topicality itself run into an empirical problem. Dialogical exchanges, such as (7), are extremely uncommon in the available corpora, while for narrative texts there are no rigorous tests to prove or disprove aboutness which may not necessarily coincide with discourse topicality. In what follows, I will outline a multifactorial typological approach to alignment in Northern Khanty.

## 2. Northern Khanty in the context of alignment typology

The concept of alignment and morphosyntactic roles was introduced in typological studies in the 1970s, when the SAO (SAP) model was proposed by R. Dixon (1972) and further developed by B. Comrie, B. Bickel, J. Nichols, A. E. Kibrik, and many others (Comrie 1981; Nichols 1992; Kibrik 1997; Bickel & Nichols 2009). In this model, S corresponds to the sole participant of an intransitive verb, A to the first participant (usually the agent and subject) of a transitive verb, and O or P to the second participant (usually the patient and direct object) of a transitive verb. This system replaced the traditional grammatical notions of subject and object, allowing researchers to uniformly describe and compare data from languages with different basic alignments. In this model, five logically possible patterns are identified: neutral (S=A=P), accusative (S=A≠P), ergative (S=P≠A), transitive or horizontal (S≠A=P), and tripartite (S≠A≠P).

What specifically makes sense for Northern Khanty, however, is to consider various deviations from these canonical patterns. One of them are active-stative systems, in which S is coded differently depending on the agentivity or patientivity of the verb. Two further patterns, symmetrical (Blust 2013) and hierarchical (Nichols 1992), deserve more attention. Symmetrical alignment, also known as Philippine-type or focus-type alignment (Klaiman 1991; Foley 1998), is widespread in Southeast Asia and codes one of the core arguments as focal based on its pragmatic relevance in the current discourse. Such languages use two or more parallel transitive constructions depending on which argument is currently in focus. In each construction, the verb indexes the role of the focal participant, while nouns distinguish the other arguments by case marking or word order. The system is symmetrical because all the constructions have the same structure, and none is morphologically more complex or derived from the others. The minimal system of this type includes an actor voice with A in focus, as in example (5a) from Balinese below, and an undergoer voice with P in focus, as in (5b), though there can be further voices corresponding to oblique arguments. S aligns with only one of the transitive arguments.

	Balin	ese (N	/Ialayo-	Polynesi	an)						
(5a)	cang	lakar	meli	kedis-e	nto	(5b)	kedis-e	nto	lakar	ø-beli	cang
	1sg	FUT	buy.AV	bird-def	that		bird-def	that	FUT	UV-buy	1sg
	'I wil	ll buy	the bird	l' (Arka 2	2002 : 3)		'I will bu	iy the	e bird'	(Arka 2	2002 : 3)

On functional grounds, active/passive alternation in Northern Khanty can be considered an instance of such actor/undergoer voice distinction. Khanty Passive by means of both verbal and nominal morphology signals a shift in focus towards a pragmatically relevant non-agent argument and appears far more frequently in texts than would be expected of a canonical passive construction. Yet formally the active/passive alternation is not symmetrical, as passive is clearly morphologically derived from active.

Hierarchical, or direct-inverse, alignment is attested in North and South America, Tibeto-Burman languages, and northern Australia. In contrast to symmetrical alignment, it codes A and P based on their relative ranking on one or several referential hierarchies, such as person, animacy, and/or definiteness (Thompson 1994; Dixon & Aikhenvald 1997; Zuñiga 2006). These languages have two parallel transitive constructions: the direct and the inverse. In direct clauses, as in example (6a) from Plains Cree, A is more prominent than P and is coded as the primary argument, while P is coded as the secondary argument. In inverse clauses, as in example (6b), P is more prominent and is coded accordingly. The verb in both constructions usually indexes the person and number of the primary argument, or sometimes both, and the direct/inverse marking indicates its role as A or P.

Plains Cree (Algonquian)	
(6a) <i>ni-wāpam-ā-w</i>	(6b) <i>ni-wāpam-ikw-w</i>
1-see-DIR-3	1-see-INV-3
'I see him/her'	'He/she sees me' (Zuñiga 2006 : 2)

As with symmetrical systems, both constructions are typically equal in complexity and non-derived. However, there are also patterns with a passive-like inverse construction that is more complex than its active/direct counterpart and, in some sense, derived from it. This inverse construction is obligatory in certain contexts and frequent enough to be considered a separate transitive construction (Klaiman 1993). For example, in Picuris, the direct form is used in a 1 A > 3 P context (7a), while the inverse form appears in a 3 A > 1 P context (7b). In this case, the direct form is zeromarked, while the inverse has a dedicated marker and triggers oblique coding of A. It is still debated whether such cases should be treated as instances of hierarchical alignment.

I	Picuris	(Kiowa-Tanoan)		
(7a)	sənene	ti-mon-'an	(7b)	ta-mọn-mia-'ạn sənene-pa
	man	1sg:IIA-see-pst		1sg:I-see-inv-pst man-obl
	'I saw	a man'		'A man saw me' (Klaiman 1993 : 359)

Systems with passive inverses such as the one in Picuris above albeit not prototypically hierarchical are the closest to what we observe in Northern Khanty both formally and functionally. As field examples below show, Northern Khanty exhibits constraints typically present in hierarchically aligned languages. Sentence (8) shows a hierarchical constraint in the domain of person. Only active can be used in direct SAP A > 3 P contexts (8a), whereas passive cannot be constructed due to the absence of locative forms of personal pronouns (8b).

- (8) a. ma waśaj-en χătśə-s-əm I Vasya-POSS.2sG hit-PST-1sG
  - b. \**waśaj-en "mănɛmən" ҳătśə-s-i* Vasya-POSS.2SG I.LOC hit-PST-PASS[3SG] 'I hit Vasya' (Kaz., field data)

Example (9) demonstrates a constraint in the domain of animacy. In an inverse inanimate A > animate P context, only passive can be used (9a), whereas active is ungrammatical (9b).

- (9) a. ewi wot-ən iλ păwət-s-a girl wind-LOC down drop-PST-PASS[3SG]
  - b. \*wot ewi iλ păwt-əs wind girl down drop-PST[3SG]
    'The wind dropped a girl down' (Kaz., field data)

The question whether or if at all the Northern Khanty system may be categorized as either symmetrical or hierarchical is not a straightforward one. As noted in a comparative overview (Haude & Zúñiga 2016), although symmetrical and hierarchical alignment are clearly distinct types, they share certain properties and, in fact, form a cline on which languages exhibit properties of either type to varying degrees. Haude and Zúñiga (2016 : 461–462) cite three languages that are intermediate between symmetrical and hierarchical types. Mapudungun is hierarchical in local (SAP-only) and mixed (SAP and third person) scenarios but pragmatic in non-local scenarios. In Movima, the coding is hierarchical, being dependent on person and animacy, but there is only one syntactically privileged argument, similar to symmetrical languages. In Jarawara, there are only two transitive constructions, as in hierarchical languages, but they have a pivot-maintaining function, similar to voice-type languages. Also the existence of hierarchical constraints in a language does not necessarily imply its overall hierarchical alignment, as hierarchical coding features can also surface in otherwise accusatively aligned languages. One such example is the inverse auxiliary kuru ('come') in Japanese, used in 3 > SAP patterns (Shibatani 2003; Koga & Ohori 2008). Hierarchical features have also been documented in certain Uralic languages, such as person patterns in object indexing in Hungarian (Bárány 2015) and possessor indexing in Tundra Nenets (Nikolaeva & Bárány 2019).

In sum, Northern Khanty might initially appear to be a typical nominative-accusative language. It features pronominal accusative coding of P, obligatory verb agreement with S/A, optional agreement with P, and a passive construction. However, a closer examination of morphosyntactic coding — particularly the constraints on the use of active and passive reveals features typical of symmetrical and hierarchical-type languages. Also given the variation in morphosyntactic coding across Northern Khanty dialects, the affinity with either hierarchical or symmetrical systems might well be a matter of degree for each variety. The general question to be pursued here is thus where exactly are Northern Khanty dialects on the symmetrical-hierarchical cline and what diachronic trends can we infer from the observed dialectal variation.

### 3. Emergent hierarchical alignment?

Northern Khanty belongs to the Uralic language family, whose members generally exhibit consistent accusative alignment in finite transitive clauses. Other alignment patterns are not found in neighboring non-Uralic languages in the North Siberian area, such as Tungusic, Turkic, or Russian. This suggests that argument coding in Northern Khanty originally adhered to the accusative type and only later has independently undergone a diachronic evolution through an intermediate symmetrical alignment, to a hierarchical one. This paper aims to provide a more detailed understanding of argument coding in Northern Khanty dialects, both synchronically and diachronically. Specifically, I seek to answer the following questions:

- To what degree is the alignment in Northern Khanty symmetrical or hierarchical?
- How does this degree vary across dialects?
- How did this variation develop diachronically?

To address these questions, I compare corpus data from four Northern Khanty dialects: Obdorsk Khanty, Shuryshkary Khanty, Tegi Khanty, and Kazym Khanty. This data is drawn from an unpublished corpus of Northern Khanty compiled by Egor Kashkin (2012–2014) and an online corpus of Obdorsk Khanty compiled by Irina Nikolaeva as part of the project "Endangered Languages and Cultures of Siberia". The dataset includes a total of 4,320 transitive clauses: 1,100 from the Kazym dialect, 544 from the Shuryshkary dialect, 944 from the Tegi dialect, and 1,682 from the Obdorsk dialect. All examples are manually annotated for the parameters of person, animacy, referential status, and topicality. Some field examples of my own from Kazym Khanty collected in Kazym village, Russia (2022) are also used for illustration purposes. All examples cited here are presented in the Finno-Ugric Phonetic Transcription and glossed in accordance with the Leipzig Glossing Rules. Unless stated otherwise, the language of the examples is Northern Khanty. The source and dialect of each example are indicated in brackets.

Person of the core arguments is annotated primarily based on pronouns and verb morphology or is inferred from context. Animacy is categorized on a basic scale: Humans > Animals > Inanimates. Humans are distinguished from animals based on sentient behavior, so human-like animals and spirits actively participating in the plot are also treated as humans. Definiteness is treated both as unique identifiability (e.g., Russell 1905; Neale 1990; Gundel & Hedberg & Zacharski 1993) and familiarity (Karttunen 1976; Kamp 1981; Heim 1982). Both aspects are relevant, as definite descriptions can be either unique but unfamiliar or familiar but non-unique. For example, *the tallest person in class* may be unique but not familiar, while *wine glass* in Heim's (1982) example *A wine glass broke last night. The glass had been*  *very expensive* represents a contextually given but not necessarily unique referent. Topicality is considered in terms of topic continuity (Givón 1983), with core arguments counted as topical only if they also appear as core arguments in the immediately preceding clause, reflecting current focus of attention (Gundel & Hedberg & Zacharski 1993).

The differences in coding observed between Obdorsk and Kazym Khanty in Section 1 lead to the following hypotheses. First, it is hypothesized that Northern Khanty dialects exhibit hierarchical alignment to varying degrees. Specifically, Kazym Khanty is expected to show the most consistent hierarchical alignment in which the active voice is used with direct SAP / topical / definite / animate A > third person / non-topical / indefinite / inanimate P contexts, while the passive is used with inverse third person / non-topical / indefinite / inanimate A > SAP / topical / definite / animate P contexts. In contrast, the alignment in Obdorsk Khanty should be the least consistently hierarchical. The remaining dialects should display intermediate behavior. Second, given that Obdorsk and Kazym are the most geographically distant from each other among the dialects considered, and that Northern Khanty dialects form a dialectal continuum, we expect the degree of hierarchical alignment to gradually increase from north to south.

The discussion of Northern Khanty data will proceed in two steps. Section 4 will compare the data from the four dialects with respect to the annotated parameters. Section 5 will then offer a tentative diachronic analysis of morphosyntactic coding.

## 4. Northern Khanty data

## 4.1. Topicality

Existing approaches to argument coding in Ob-Ugric suggest starting the exploration of Northern Khanty data with relative topicality of A and P. This parameter is claimed to be of primary importance particularly for the active/passive alternation in Ob-Ugric (Kulonen 1989; Nikolaeva 2001; É. Kiss 2019). According to these studies, when argument A matches the current topic, it appears in the subject position, and the active voice is used. Otherwise, A is demoted, and the verb appears in the passive voice. In direct topical A > non-topical P contexts,<sup>1</sup> we indeed observe a near obligatory use of active, cf. subjective conjugation with a non-topical indefinite P (10) and objective conjugation with a non-topical definite P (10).

(10)  $\acute{si}$  mort  $ta\acute{s}-\eta-a$  ji-s,  $mo\lambda t \ arat$   $\lambda ant-\eta$ DEM degree wealth-PROPR-DAT go-PST[3SG] what quantity flour-PROPR *ampar*  $t \ \breve{a} \ j - \vartheta \ \lambda$ barn have-NPST[3SG]

'He became so rich that he has many barns of flour' (NHC, Kaz., "God given wealth" 4)

{Then she made a small boat, made a bow and arrows. "You, kid, go and hide inside the hole. Stay there, there is food there, don't even go outside. I'm going to fight".}

<sup>&</sup>lt;sup>1</sup> Whenever the immediately preceding clause is not mentioned in the example itself, left context is provided in curly brackets to illustrate the non-topicality of P, i.e. absence of the corresponding referent from the previous clause.

(11) *śiŋańśa xɔp-əλ* n i k p o t k ə-s-λ i pa pun-i kari then boat-POSS.3SG to.shore push-PST-3SG>SG and wool-ADJ bark eλti wer-əm xɔp-əλ from make-NFIN.PST boat-POSS.3SG
'Then she pushed her boat into the water, the boat made of unpeeled bark' (NHC, Shur., "The mouse" 58)

However, in all four dialects one finds a few passive examples as well. Sentence (12) is extracted from a passage describing a hostile group of foreigners arriving in a village where the action occurs.

{So they slowly set off, grabbed their swords, carefully walked, into each chum they enter}

(12) xota λοη-λ-ət, xojat-ət isa părat-λ-aj-ət, where enter-NPST-PL people-PL all destroy-NPST-PASS-3PL w e λ - λ - aj - ət kill-NPST-PASS-3PL
'Wherever they go, they murder, kill people' (NHC, Shur., "How surnames appeared" 43)

Such use resembles more prototypical passive constructions, e.g. in European languages, that are known to demote an irrelevant A rather than a strictly non-topical one (Shibatani 1985). Thus, even though A is clearly topical, the demotion of P in a passive construction may occur because either P or the result of the action is more relevant to the story than A itself.

In inverse non-topical A > topical P contexts, on the other hand, there is no general preference for passive. Instead, we observe a clear split between the two northern and the two southern varieties: Kazym and Tegi dialects show such a preference, while Obdorsk and Shuryshkary dialects do not.<sup>2</sup> 75% of examples in Kazym are passive (81 out of 108), and in Tegi, 67% (66 out of 98), as illustrated in the typical example of passive construction in (13) from Kazym dialect.

{He really missed his friends and his native land.}

(13) xɔn-ən λuw w ɔ š ə t - s - a pa wek kɛš-a λuweλ joxi king-LOC he drive-PST-PASS[3SG] ADD forever for-DAT he.DAT home joxət-ti ănt răx-əs arrive-NFIN.NPST NEG be.suitable-PST[3SG]
'But the king drove him away and ordered him not to return home forever' (NHC, Kaz., "The Tsar's Resourceful Servant": 112)

In Shuryshkary, passive is attested in only 45% of examples (10 out of 22), while in Obdorsk, it is attested in 46% (38 out of 82). Alongside passive, it is common to find active examples in which A is not mentioned in the preceding clause, but is still globally topical (14), or at least familiar (15).

{Once upon a time there lived a mouse. She had four little mice.}

(14) i pošxijeλ nawi pošxije ūs, met one baby-DIM-POSS.3SG white baby-DIM be:PST[3SG] most š a λ i t-s- ∂ λ λ i sympathize-PST-3SG>SG

<sup>2</sup> Chi-square (3, N = 310) = 20.1109, p = 0.000161. The result is significant at p < .05.

'There was one little white baby mouse, she liked him more than all the others.' (NHC, Shur., "The Mouse" 3)

{Maybe they will perform just such a miracle, maybe they'll get everything. Meat, clothes, who knows. That's human life.}

(15) taś-l sawi-t-al săxat ittam jɔx-l-əl pa herd-POSS.3SG tend-NFIN.NPST-3SG then that man-PL-POSS.3SG ADD u ś-l-əlli find-NPST-3SG>SG
'Sooner or later, while he was guarding the herd, these people found him again' (ELCS, Obd., "Imi-Xili" 384)

Active is also obligatory in rare contexts like (16), in which A is pronominal and focused. In these cases, A cannot be demoted from the subject slot be demoted from the subject slot, because personal pronouns, as mentioned in section 4.1, do not have locative case forms.

(16) χ*ɔt* χ*ăr* k*ŭtəp-na* χ*ălśa jŏ*χ*t-əl śit, tŭmi lŭw,* house floor middle-LOC from:where arrive-NPST[3SG] so there he *law-əl, t u-s* say-NPST[3SG] bring-PST[3SG]
'How did our sister's ring come here onto the floor? He brought it' (ELCS, Obd., "The seven knives" 34)

Figures 1 and 2 summarize the distribution of active subjective and objective conjugations and passive forms in two contexts: inverse non-topical A > topical P, and direct topical A > non-topical P. In direct topical A > non-topical P contexts, all Northern varieties show a nearly obligatory use of the active voice, with some exceptions. In inverse non-topical A > topical P contexts, however, there is a divide: in the Kazym and Tegi varieties, the passive voice clearly prevails; whereas in the Obdorsk and Shuryshkary dialects, the active voice is as common as the passive. This split in behavior aligns with our expectations that the dialects in the southern part of the area have moved further away from the broader relevance-based active/passive alternation as in symmetrically or accusatively aligned languages towards a more consistent hierarchical alignment.

# 4.2. Person

Treating Northern Khanty as a hierarchical-type system implies taking into account the parameter of person. One of the key features of a hierarchical system is that speech-act participants are grammatically higher ranked than third-person referents. Northern Khanty demonstrates a notably high consistency in this regard, as active obligatorily aligns with direct SAP A > 3 P contexts, as shown in examples (17) and (18) with 1 A > 3 P.

- (17) nepek-en śi wu-s-em, tuo-λ-em
  paper-POSS.2SG FOC take-PST-1SG carry-NPST-1SG
  'I took your paper, I will take it away' (NHC, Teg., "Imi Xili" 25)
- (18) muŋ n o x p i t s o w jălań iki we up fall-PST-1PL Jalan man 'We defeated the Jalan man' (NHC, Shur., "Mouse" 90)



Fig. 1. Relative frequencies of verb forms in direct topical A > non-topical P contexts in Northern Khanty dialects.



*Fig.* 2. Relative frequencies of verb forms in inverse non-topical A > topical P contexts.

This obligatoriness straightforwardly follows from the fact that presentday Northern Khanty dialects do not have locative case forms for personal pronouns, which prevents them from occurring as A in a passive construction. In contrast, in Eastern Khanty personal pronouns have full case paradigms, including locative forms that can appear in passive, as in (19) below.

Eastern Khanty (Uralic)

(19) op∂l-∂m qot mut∫∂ puran pɨr-i quγt-∂m, sister-POSS.1SG/SG home until skidoo back-LAT2 trod-1SG tü lat-n∂ aj amp-∂li m a - n ∂ il∂-ti a s l-i
DEM time-LOC small dog-DIM 1SG-LOC front-LAT let-PASS[3SG]
'I ran behind the skidoo all the way to my sister's house and the doggy was let go by me' (Filchenko 2007 : 403)

In fact, the only way to use passive in a direct SAP A > 3 P context in Northern Khanty is to have a zero SAP-referring A, which is only attested in a few examples from Obdorsk Khanty, as shown in (20) below. This again confirms its status as the least consistently hierarchical compared to other Northern varieties. A similar use of passive is also found in the Tegi variety (21).

(20) *wəs sŭkat-ti pəskan tu-l-a pa pəskan* town break-NFIN.NPST gun bring-NPST-PASS[3sG] ADD gun *e s-l-a pa, law-al, juxal telna śi* release-NPST-PASS[3SG] ADD say-NPST[3SG] tree with so *kalt-ew-na tu-l-ew* footstep-1PL-LOC bring-NPST-1PL>SG 'From home I'll bring a cannon to shoot over the city, we'll shoot the cannon and take the entire tree' (ELCS, Obd., "Fox" 174)

(21) *śit ki śăta wuoλ, aλ măn-λ-a*that if there be:NPST[3sG] probably go-NPST-PASS[3sG]
'If it's there, we can perhaps visit it' (NHC, Teg., "The Tsarevich's Son" 719)

On the other hand, inverse 3 A > SAP P contexts are most commonly found in passive, as illustrated in (22) below. There is only a slight difference in the percentages of passive in inverse contexts between Kazym (93.48% of examples, 43 out of 46) and Tegi (92.73% of examples, 51 out of 55) dialects compared to Obdorsk (86.49% of examples, 32 out of 37) and Shuryshkary (73.68% of examples, 14 out of 19) that reflects the presumed dialectal variation in the degree of hierarchical alignment.

(22) pătlam xət-a xən-ən ə m ə s - λ - a j - ə m dark house-DAT king-LOC seat-NPST-PASS-1SG
'The king will put me in prison' (NHC, Kaz., "The Tsar's Resourceful Servant" 23)

Active sentences with 3 A > SAP P are rare across all dialects, only in the Shuryshkary dialect does the rate of active exceed 20%. In such contexts, A is highly topical and takes zero or pronominal form, as shown in (23) from Kazym Khanty.

(23) tox sos λuw mănti i ń ś-m- ∂ λ - λ e some hour he I.ACC ask-PNCT-NPST-3SG>SG
'Sometimes he asks me' (NHC, Kaz., "In the evening" 11)

Figures 3 and 4 summarize the distribution of active subjective and objective conjugations and passive in direct SAP A > 3 P and inverse 3 A > SAP P contexts, respectively.

The parameter of person demonstrates a more or less uniform hierarchical behavior across dialects. In direct SAP A > 3 P contexts, active is fully obligatory while in inverse 3 A > SAP P contexts, passive is near obligatory, with slightly higher percentages in Kazym and Tegi than in the other two varieties.

# 4.3. Animacy

Besides person, hierarchical-type languages often show sensitivity to other morphosyntactic parameters such as animacy, definiteness and topicality (Zuñiga 2006 : 48). Animate NPs rank higher than inanimate ones, therefore, the more frequently animate NPs appear as subjects, the more consistently the system follows a hierarchical alignment. Generally, direct animate A > inanimate P, as in (24), and human A > non-human P contexts, as in (25), prefer active over passive.



Fig. 3. Relative frequencies of verb forms in direct SAP A > 3 P contexts.



Fig. 4. Relative frequencies of verb forms in inverse 3 A > SAP P contexts.

- (24) nampar wɔj-ije-n tăλ keš-a xɔt w e r ∂ λ garbage animal-DIM-2sG winter for-DAT house do-NPST[3sG]
  "The mouse is preparing his house for winter" (NHC, Shur., "The Mouse and the Bear" 25)
- (25) λ*ow-∂λ* š ǫ ŋ x s ∂ s λ e, xǫλεη aŋk∂λ šǫp-a horse-POSS.3SG kick-PST-3SG>SG dirt-PROPR stump piece-DAT *ji-s* go-PST[3SG]
  '(The eldest son) kicked the horse, and it turned into a dirty stump'

(The eldest son) kicked the horse, and it turned into a dirty stump' (NHC, Kaz., "God given wealth" 7)

An inanimate P is less likely to receive secondary agreement in active than an animate one. Out of the two conjugation forms in active, subjective conjugation is preferred over objective conjugation in all dialects except for Obdorsk,<sup>3</sup> cf. Obdorsk with 52% of examples (256 out of 493) of subjective conjugation in animate A > inanimate P and Shuryshkary with 61% of examples (99 out of 152), Tegi with 61% of examples (207 out of 342), Kazym with 60% of examples (202 out of 335) and similar proportions for human A > non-human P contexts.

The use of passive in a direct animate A > inanimate P context is illustrated in (26). Somewhat surprisingly, passive constructions in these contexts are slightly more frequent in the supposedly better hierarchically aligned Kazym and Tegi dialects compared to the other two dialects. The same is  $\overline{3 \text{ Chi}} = 0.022604$  The result is similar at n < 0.05

 $<sup>\</sup>frac{3}{3}$  Chi-square (3, N = 1322) = 9.4662, p = 0.023694. The result is significant at p < .05.

true for non-human A > human P contexts. This is likely due to topicality becoming increasingly more relevant than animacy in both varieties (see section 4.1 on topicality).

(26) iśi potr-ət in kimət jăλp-a pox-leŋkij-ən śi same speech-PL now second new-adv boy-DIM-LOC FOC m ɔ ń ś - λ - a j - ə t narrate-NPST-PASS-3PL
'The boy tells the same story again' (NHC, Teg., "The Tsarevich's Son" 960)

Inverse inanimate A > animate P and non-human A > human P contexts, on the other hand, though relatively rare in all four dialects, show a consistent pattern: passive is used in all inanimate A > animate P contexts (27) and in almost all non-human A > human P contexts (28) in the corpus data.

- (27) xpp jux-ən śi xqj-λ-an părət-λ-aj-ət aspen tree-LOC DEM man-PL-POSS.2SG destroy-NPST-PASS-3PL
  'The aspen stick began to beat the warriors' (NHC, Kaz., "The boy from the other side" 121)
- (28) *itta akar-ŋən-na e p s e m ə s a* that watchdog-DU-LOC sniff-PNCT-PST-PASS[3SG]
  'The watchdogs sniffed at (the grandmother's grandson)' (ELCS, Obd., "Imi-Xili" 200)

Exceptional examples of active in non-human A > human P contexts, as in (29) below, are found — predictably — in the presumably less hierarchically aligned Obdorsk (one example) and Shuryshkary (two examples) dialects.

(29) ăsat lùwel wek wan-na tăj-ti pit-s-el all he.ACC forever close-LOC have-NFIN.NPST become-PST-3PL>SG '(The animals) all became completely used to him' (ELCS, Obd., "The wonderful son" 51)

The distribution of verb forms in direct animate A > inanimate P and human A > non-human P contexts is summarized in Figures 5 and 6. Visualizations of inverse contexts are omitted due to the scarcity of data.

In sum, active is generally preferred in direct animate A > inanimate P and human A > non-human P contexts, while the passive is either obligatory



*Fig.* 5. Relative frequencies of verb forms in direct animate A > inanimate P contexts.



*Fig. 6.* Relative frequencies of verb forms in direct human A > non-human P contexts.

or nearly obligatory in inverse inanimate A > animate P contexts, which is consistent with hierarchical alignment. Three dialectal differences are apparent. First, active forms in inverse non-human A > human P contexts are found only in the Shuryshkary and Obdorsk varieties. Second, subjective conjugation is preferred over objective conjugation in all dialects except for Obdorsk in direct animate A > inanimate P and human A > non-human P contexts. Both observations support the idea of a gradual hierarchization of the system moving southward. Third, contrary to expectations, the passive in direct animate A > inanimate P and human A > non-human P contexts is slightly more frequent in the Kazym and Tegi dialects compared to the other two.

## 4.4. Definiteness

Definite NPs also rank higher than indefinite ones and are expected to receive distinct marking. Similar to animacy, direct definite (familiar and/or unique) A > indefinite (non-familiar and/or non-unique) P contexts are predominantly found in the active voice, as illustrated in (30) from the Obdorsk dialect. However, occasional passive sentences, such as (31), are found in each variety.

- (30) *jiŋk ɔjka t ǫ-s ɔsa λajəm* water man bring-PST[3SG] simple axe
  'The water spirit brought a simple axe' (NHC, Kaz., "The golden axe" 16)
- (31) mŏsa pa ńawrem-em-na w a n t l a tɔŋχa what ADD child-POSS.1SG-LOC watch-NPST-PASS[3SG] PTCL
  'I didn't see anything, maybe our child will see something' (ELCS, Obd., "The wonderful son" 20)

In active definite A > indefinite P contexts, the dominant form is subjective conjugation. Corpus data show that 70-80% of these sentences use subjective forms in familiar A > non-familiar P contexts, with a stronger preference in Kazym and Tegi -78% (227 out of 289 examples) and 80% (198 out of 244 examples), respectively - compared to Obdorsk, with 73% (254 out of 342), and Shuryshkary, with 70% (95 out of 132).

Uniqueness of the P-argument appears to be more relevant than its familiarity, as the percentages of subjective conjugation in unique A > non-

unique P contexts rise to 87–91%. This is evident from examples like (32), found in all four dialects, where a previously unmentioned P, such as 'his basket for arrows,' is nevertheless indexed on the verb. Noun phrases like 'his basket for arrows' acquire a definite reading through so-called bridging inferences (Clark 1975), i.e., pragmatic links to other definite referents, in this case, the man's unique basket for arrows.

(32) *in ike-n tăxər-əλ pelki p u n š - m ə - s - λ i*this man-2sc basket-poss.3sc wide open-PNCT-PsT-3sc>sc
'The man quickly opened his basket for arrows' (NHC, Shu., "How surnames appeared" 86)

The dialectal distribution of the two conjugations in unique A > nonunique P contexts is roughly the same as that observed with familiarity, with 90% in Kazym (217 out of 242 examples), 91% in Tegi (187 out of 205 examples), 87% in Shuryshkary (89 out of 103 examples), and 86% in Obdorsk (234 out of 269 examples).

Passive, as in sentence (33) below, is used in almost all inverse indefinite A > indefinite P contexts across all four dialects, with few exceptions, as illustrated in (34). Notably, in the Tegi dialect, passive is used in 100% of inverse non-unique A > unique P contexts, even more than in the presumably better-aligned Kazym dialect.

- (33) a wuna jeńś-əm xuoj-əλ śăta xănnexuoj-ət-ən nox and wine drink-NFIN.PST man-POSS.3SG there person-PL-LOC up w u-s-a take-PST-PASS[3SG]
  'And some people picked up the man who had drunk the wine' (NHC, Teg., "Picture description VII" 11)
- (34) *pilŋaj-ət* ŏχ-əl śiti p ŏ r-l-ə t, ńar ŏχ-əl-na mosquito-PL head-POSS.3SG so chew-NPST-3PL bald head-POSS.3SG-LOC 'Mosquitoes bit his head, his bald head' (ELCS, Obd., "Kuzma and his strong comrades" 8)

The distribution of verb forms in direct and inverse contexts with respect to familiarity and uniqueness is summarized in Figures 7 to 10. In all dialects, active is nearly the only option in direct familiar > non-familiar and unique > non-unique contexts, while passive is far more frequent than active in inverse non-familiar > familiar and non-unique > unique contexts,



*Fig.* 7. Relative frequencies of verb forms in direct unique A > non-unique P contexts.



*Fig. 8.* Relative frequencies of verb forms in direct familiar A > non-familiar P contexts.



Fig. 9. Relative frequencies of verb forms in inverse non-unique A > unique P contexts.



Fig. 10. Relative frequencies of verb forms in inverse non-familiar A > familiar P context.

which is consistent with hierarchical alignment. In active direct definite A > indefinite P contexts, subjective conjugation prevails over objective conjugation, with slightly higher percentages of subjective conjugation in the presumably better-aligned Kazym and Tegi dialects than in the Obdorsk and Shuryshkary varieties.

# 4.5. Proximate marking

Languages with hierarchical alignment sometimes develop a special nominal category known as obviation, which distinguishes between "proximate"

(prominent third-person arguments) and "obviative" (non-prominent) ones (Goddard 1990; Aissen 1997; 2001). According to Aissen (1997), there are three basic principles of obviation: (a) animate is proximate, while inanimate is obviative; (b) the subject is proximate, and the object is obviative; and (c) the possessor is proximate, and the possessee is obviative.

Proximate coding also follows the principle of proximate uniqueness, which stipulates that within an obviation span — consisting of at least one full clause — only one argument can be coded as proximate. First- and second-person arguments do not participate in obviation. For instance, in (35a), 'dog' is assigned proximate status as it is the only third-person participant. However, in (35b), 'dog' is assigned obviative status due to the presence of a higher-ranked proximate participant, 'man'.

Plains Cree (Algonquian)

(35) a. Niwapamaw atim<br/>see(1-3.PROX) dog (3.PROX)b. Pakamahwew napew atimwa<br/>hit(3.PROX-3.OBV) man(3.PROX) dog(3.OBV)<br/>'The man hits the dog' (Aissen 1997 : 707)

In Kazym Khanty, the 2SG possessive suffix has several non-possessive extensions, most notably a salient article use (Mikhailov 2024), which is highly frequent in field data. As a salient article, the 2SG possessive marker typically appears on subjects (36a) and only once per clause. For instance, in (36b), where there are two 2SG-marked core arguments, only the subject can take on a salient article reading. Thus, this salient article use roughly corresponds to proximate marking in languages with obviation.

(36) a. a m p - e n λŏw šuwaλ-as b. a m p - e n λ ŏ w - e n šuwaλ-as dog-POSS.2SG bone see-PST[3SG]
'The dog saw the bone'
'The/your dog saw your/\*the bone' (Kaz., field data)

However, treating such 2SG-marking as proximate presents challenges, as it can sometimes violate the proximate uniqueness principle. This occurs, for example, when both A and P are expressed with demonstrative NPs, as shown in the example below.

(37)  $t \check{a} m \ a m \ p - e \ n$   $t \check{o} m \ \lambda \ \check{o} \ w - e \ n$   $\check{s} u w \partial \lambda - \partial s$ this dog-POSS.2SG that bone-POSS.2SG see-PST[3SG] 'This dog saw that bone' (Kaz., field data)

It is also important to note that there is no corresponding obviative marker in Kazym Khanty, which is typologically unexpected. In languages with obviation, there is typically either both proximate and obviative marking or only obviative marking (Aissen 2001 : 24).

In our data, only a few actual examples of the salient article use have been found. Specifically, 14 examples are attested for the Kazym dialect, compared to 5 examples for Tegi, 8 for Shuryshkary, and 3 for Obdorsk (see examples (38) and (39) below). This scarcity of the salient article use in texts may be due to several factors: competition between 2SG and other possessive markers, which also have non-possessive uses; high frequency of proper names in traditional narratives, which feature another nonpossessive use of the 2SG marker — the proprial article (Mikhailov 2024); and overall conservativeness of traditional narratives in comparison to the present-day spoken language.

- (38) *śi păta in s ɔ r t e n lăp-əŋ ńɔλ šănš-əλ-ən śi* DEM for now pike-POSS.2SG tip-PROPR arrow back-POSS.3SG-LOC FOC *tăj-əλ* have-NPST[3SG]
  'That is why the pike now has an arrow with a tip on its back' (NHC, Kaz., "Pike and wood grouse" 8)
- (39) a j i k e-n keši wu-s, śi kuš wus little man-POSS.2SG knife take-PST[3SG] FOC though hole wer-∂λ, pa kew xir xota tăxe-λ make-NPST[3SG] ADD stone bag where place-POSS.3SG
  'The boy took a knife and though he cut a hole, he still sits in a stone bag' (NHC, Teg., "The bag I" 12)

Although this data does not allow us to draw statistically significant conclusions, the higher number of examples in the Kazym dialect compared to other varieties aligns with the expectation that Kazym Khanty exhibits the highest degree of hierarchical alignment among the northern varieties under study.

## 5. Summary and discussion

As expected, Northern Khanty exhibits varying degrees of hierarchical alignment across its dialects, forming a gradient from the northernmost Obdorsk dialect to the southernmost Kazym dialect. In the Tegi and Kazym dialects, the choice of voice and object agreement is highly correlated with hierarchical status of the core arguments, bringing these varieties closer to canonical hierarchical systems. In turn, the same categories in Obdorsk and Shuryshkary varieties seem to be driven more by pragmatic considerations, which would ideally resemble symmetrical alignment except for the already notable hierarchical tendencies, especially in the domain of person. The consistency of hierarchical coding clearly increases from North to South, as evidenced by the following observations:

Passive is better aligned with inverse to the south of the area: the proportion of passive in inverse non-topical A > topical P contexts is clearly higher in the Kazym and Tegi varieties than in the other two dialects.

Objective conjugation is more sensitive to the hierarchical status of P to the south of the area: Objective conjugation is more sensitive to the hierarchical status of P in the southern dialects: it is less common in animate > inanimate contexts in Kazym, Tegi, and Shuryshkary dialects, and less common in definite > indefinite contexts in Kazym and Tegi dialects.

Highly prominent arguments are increasingly marked nominally to the south: there are more examples of the use of the 2SG possessive suffix in a "proximate" function in the Kazym dialect compared to other varieties.

Thus, as one moves southward, active voice increasingly aligns with direct contexts, passive voice with inverse contexts, and proximate arguments are more frequently marked on nouns. This variation raises questions about potential diachronic processes behind this dialectal divergence. Possible scenarios include: a historical drift towards more consistent hierarchical alignment, as seen in Kazym Khanty; a drift towards less consistent hierarchical alignment, as observed in Obdorsk Khanty; or a bidirectional drift from a third, intermediate state to the current conditions.

Based on existing evidence and new data, I argue that Northern Khanty historically transitioned from nominative/accusative alignment to symmetrical alignment. Remnants of this earlier system are observed in the Obdorsk dialect and Eastern Khanty, while the Kazym dialect has further evolved towards hierarchical alignment.

Several points support this proposal:

First, the Proto-Uralic accusative suffix \*-*m* (Collinder 1960 : 282, 284–286) present in many Uralic languages outside the Ob-Ugric group has been retained in Eastern Mansi (Virtanen 2014; Virtanen & Sosa 2018), which suggests that it may have also existed in other Ob-Ugric languages, including Northern Khanty. Certain dialects of Mansi and Northern Khanty, most notably the Kazym dialect explored in this paper, exhibit yet another Proto-Uralic or at least Proto-Ugric accusative form in \*-*t* which is restricted to personal pronouns. Present-day Eastern Khanty exhibits a possibly related instance of the \*-*t* case termed an instrumental-object (Filchenko 2007) or instructive-final (Sosa 2017) case, which marks certain types of direct objects. Although the exact diachronic evolution of accusative marking in the Uralic languages, especially on personal pronouns, is still a matter of debate (Janhunen 2020; Honti 2022), these facts more or less clearly point at the accusative origins of the Northern Khanty system.

Second, typological evidence indicates that passives often develop into inverses, leading to a shift from accusative to hierarchical alignment, with no known evidence of the reverse process. Such a development is observed in language families of the Pacific Northwest, including Wakashan, Chimakuan, and Salish (Mithun 2007). It is suggested (Givón 1994; Gildea & Zúñiga 2016) that this shift is triggered by the overuse of passive constructions in inverse 3 A > SAP P contexts. This seems applicable to Northern Khanty data as well, since the domain of person in Northern Khanty is the most consistently hierarchical across the dialects studied.

Finally, the unique consistency of hierarchical coding in Kazym Khanty, compared not only to other Northern but also to more conservative Eastern varieties, suggests that hierarchical alignment is an innovative development rather than an earlier state of the system. The high degree of alignment of active with direct and passive with inverse contexts, along with the the grammaticalized use of 2SG possessive as a proximate-like salient article, indicates that Kazym Khanty and the neighboring Tegi Khanty systems are more innovative compared to other dialects.

Given these considerations, we propose that the development proceeded from accusative to hierarchical alignment, with Kazym dialect playing a leading role in this process and reaching the most advanced stage. Other Northern varieties reflect earlier stages of this development. The development likely followed this path:

1) Passive promotes pragmatically relevant P. At this stage, similar to symmetrical or Philippine-type languages, passive promotes P that is broadly "topical," i.e., easily accessible, associated with another salient referent, or of subsequent importance. The speaker retains some freedom to choose whether or not to use passivization based on current communicative needs. This stage is represented in Eastern Khanty, where passivization is still formally unconstrained. All Northern varieties under consideration, however, have progressed at least to Stage 2.

2) Passive increasingly aligns with inverse contexts. Passive expands its scope, promoting not only pragmatically relevant but also any P-arguments that occupy higher positions on the prominence hierarchies. Although this promotion is not yet obligatory — active is still widely attested in such contexts — passive loses the ability to demote hierarchically high pronominal A-arguments. This contrast is evident between Eastern and Northern dialects. Eastern Khanty retains locative case on personal pronouns, allowing for contexts with demoted pronominal A, whereas Northern varieties lack locative pronominal forms and thus do not demote pronominal arguments. This stage roughly corresponds to the situation in all four Northern varieties.

3) Active increasingly aligns with direct contexts. As passive is increasingly used in inverse functions and competes with active in those contexts, active begins to align with direct contexts, completing the overall hierarchization of alignment. In the Obdorsk dialect, while pronominal A in passive is banned, agentless passives can still refer to speech-act participants. In other dialects, even zero-reference to first or second person is impossible; instead, active must be used regardless of the pragmatic relevance of these participants. Alignment in the domain of third person follows this trend, with subjective conjugation gradually disappearing from contexts with hierarchically low, that is non-human, inanimate or indefinite P. At the same time nouns increasingly occur with a a proximate-like use of the 2SG possessive marker in a salient article function. This stage is observed in the Shuryshkary, Tegi and Kazym variety.

4) Strenghtening of hierarchical associations. Tegi and Kazym varieties show the highest degree of hierarchical alignment in all domains, including a strong preference for passive in inverse non-topical A > topical P contexts, predominant use of subjective conjugation with P low in animacy, humanness and definiteness. Kazym Khanty also shows a relatively more frequent use of the 2SG possessive marker with proximate arguments.

It should be kept in mind, however, that, while Northern varieties of Khanty exhibit clear hierarchical patterns in morphosyntactic coding, these patterns are tendencies rather than obligatory constraints found in proto-typical hierarchical-type languages, such as those in the Algonquian family. For example, active may occur in inverse 3 A > SAP P contexts if A is highly topical and expressed with a personal pronoun or zero. Passive also retains pragmatic uses in direct animate/definite A > inanimate/indefinite P contexts. Neither does Northern Khanty fully meet the hierarchical prototype in terms of form. First, passive has not completely evolved into a second transitive construction, as A is still coded as locative oblique. Second, there is no fully developed nominal category of obviation distinguishing proximate (i.e., prominent third persons) from obviative (i.e., non-prominent ones), except for the use of the 2SG possessive as a topic marker.

The analysis presented above does not fully exclude alternative scenarios. First, since the present-day situation in Eastern Khanty has not been thoroughly investigated and there is no historical data on the use of passive in earlier stages, it is uncertain when passive began to exhibit inverse-like behavior. It is possible that this shift occurred when Northern and Eastern varieties still retained case-marking of core arguments. If so, this development might have triggered the loss of core case distinctions and subsequent changes. Second, the fact that the Obdorsk variety shows the least consistent hierarchical behavior among the Northern varieties does not necessarily make it representative of the earliest diachronic stage. Obdorsk Khanty might have deviated from the general hierarchical trend towards a more pragmatic system due to significant influence from the neighboring Tundra Nenets, which does not exhibit an inverse-like use of passive.

This study leaves several questions open for further research. First, the relationship between coding and topicality remains unclear. Some referents mentioned in the preceding clause may be discourse-old continuous topics, while others might be discontinuous or newly established, affecting their likelihood of appearing as subjects and being indexed on the verb. Additionally, the presence or absence of subsequent mentions of a referent is an important factor. To fully understand this, a quantitative analysis of topic continuity, as proposed by Givón (1983), should be conducted. Second, as has been already mentioned, indefinite and/or non-topical referents can be linked to topical and/or definite referents through bridging inferences, which can also influence coding. This study only addresses straightforward cases where a bridged referent can be uniquely identified, leaving other cases outside its scope. Third, this study only examined contexts where one core argument is hierarchically higher than the other. A complete analysis should also consider argument coding in contexts with hierarchically equal arguments. Fourth, certain uses of passive, especially in the Obdorsk dialect, which is closest to being symmetrical, can be characterized as pragmatic (e.g., in example 38 in section 4.4). However, the exact motivations behind such uses – whether due to the irrelevance of the A-argument or specific narrative structuring strategies — remain unclear and are left for further investigation. Lastly, to gain a comprehensive understanding of morphosyntactic coding in Northern Khanty, it is necessary to extend the analysis to include data from Eastern and other Northern dialects, particularly those to the south of Kazym.

# 6. Conclusion

The study examines the morphosyntactic coding of core arguments across Northern Khanty dialects, focusing on the choice between the active and passive voice and between the subjective and objective conjugation. The morphosyntactic behavior of these categories shifts from a pragmatic, Philippine-like system towards hierarchical alignment along a geographical gradient, from the Northernmost Obdorsk dialect to the southernmost Kazym dialect. Based on this distribution and various diachronic facts, it is argued that Northern Khanty has developed a hierarchical alignment system to varying degrees from what was initially a nominative-accusative alignment, similar to other Uralic languages. Further research directions include clarifying the relationship between argument coding and topicality, conducting a detailed analysis of bridging inferences and their influence on the definiteness and topicality of arguments, comparing argument coding in hierarchically equal (local, non-local) contexts, exploring pragmatic (non-hierarchical) uses of passive, and considering data from other Northern and Eastern Khanty dialects.

**Acknowledgements.** The publication costs of this article were covered by the Estonian Academy of Sciences.

The research was conducted under the project "Verb agreement and voice in Northern Khanty discourse" supported by the Alexander von Humboldt Foundation. I am grateful to my colleagues Stiopa Mikhailov, Vsevolod Masliukov, and Daria Zhornik, for discussing my data and helpful comments. I also thank an anonymous reviewer who helped me to improve the quality of this paper. All remaining mistakes are my own.

**Data availability statement.** The dataset used in this study is available on Zenodo. https://zenodo.org/records/13284713. https://doi.org/10.5281/zenodo.13284713.

### Address

Nikita Muravyev University of Hamburg nikita.muraviev@gmail.com https://orcid.org/0000-0001-9586-5928

#### Abbreviations

A — transitive subject, ACC — accusative, ADD — additive, ADJ — adjectivizer, AV — actor voice, DAT — dative, DEF — definite, DEM — demonstrative, DIM diminutive, DIR — direct, DU — dual, FOC — focal, FUT — future, INV — inverse, LAT — lative, LOC — locative, NEG — negation, NFIN — non-finite, NPST non-past, OBL — oblique, OBV — obviative, PASS — passive, P — transitive object, PL — plural, PNCT — punctive, POSS — possessive, PROPR — proprietive, PROX — proximate, PST — past, PTCL — particle, SG — singular, UV — undergoer voice.

ELCS — Endangered Languages and Cultures of Siberia, Kaz — Kazym dialect, NHC — Northern Khanty corpus, Obd — Obdorsk dialect, Shur — Shuryshkary dialect, Teg — Tegi dialect,

### REFERENCES

- A i s s e n, Judith 1997, On the Syntax of Obviation.— Language 73:4, 705—750. http://dx.doi.org/10.2307/417324.
- -- 2001, The Obviation Hierarchy and Morphosyntactic Markedness. Linguistica Atlantica 23, 1–34.
- A r k a, I Wayan 2002, Voice Systems in the Austronesian Languages of Nusantara: Typology, Symmetricality and Undergoer Orientation. A paper (invited) to be presented at the 10th National Symposium of the Indonesian Linguistics Society, Bali-Indonesia, July 2002. https://openresearch-repository.anu.edu. au/server/api/core/bitstreams/697ef412-c4e6-473d-901b-60bcf60fe376/content.
- B á r á n y, András 2015, Differential Object Marking in Hungarian and the Morphosyntax of Case and Agreement. PhD dissertation, University of Cambridge. https://andras.barany.at/files/barany-dissertation.pdf.
- B i c k e l, Balthasar & N i c h o l s, Johanna 2009, Case Marking and Alignment. — The Oxford Handbook of Case, Oxford: Oxford University Press, 304— 321.
- Blust, Robert 2013, The Austronesian Languages. https://openresearch-repository.anu.edu.au/server/api/core/bitstreams/acb0151b-ebb5-4941-8f29-8f61a 28c777e/content.
- Clark, Herbert H. 1975, Bridging. Theoretical Issues in Natural Language Processing. TINLAP '75. Proceedings of the 1975 Workshop on Theoretical Issues in Natural Language Processing. http://dx.doi.org/10.3115/980190.980237.
- C o l l i n d e r, Björn 1960, Comparative Grammar of the Uralic Languages, Stockholm: Almqvist & Wiksell.

- C o m r i e, Bernard 1981, Language Universals and Linguistic Typology. Syntax and Morphology, Oxford: Blackwell.
- D a l r y m p l e, Mary & N i k o l a e v a, Irina 2011, Objects and Information Structure, Cambridge: Cambridge University Press. http://dx.doi.org/10.1017/ CBO9780511993473.
- D ä b r i t z, Chris Lasse 2020, Topik, Fokus und Informationsstatus. Modellierung am Material nordwestsibirischer Sprachen, Berlin: Walter de Gruyter (Language, Context and Cognition. Volume 17). http://dx.doi.org/10.1515/9783110716337.
- D i x o n, Robert M. W. 1972, The Dyirbal Language of North Queensland, Cambridge: Cambridge University Press. https://doi.org/10.1017/cbo97811 39084987.
- D i x o n, Robert M. W. & A i k h e n v a l d, Alexandra Y. 1997, A Typology of Argument-Determined Constructions. — Essays on Language Function and Language Type. Dedicated to T. Givón, Amsterdam: Benjamins, 71— 113. https://doi.org/10.1075/z.82.08dix.
- É. K i s s, Katalin 2019, Fused Grammatical and Discourse Functions in Ob-Ugric: Case, Agreement, Passive. — Arbeitspapier 130, 163—174.
  F i l c h e n k o, Alexander Y. 2007, A Grammar of Eastern Khanty. Doctoral disser-
- F il c h e n k o, Alexander Y. 2007, A Grammar of Eastern Khanty. Doctoral dissertation, Rice University. https://repository.rice.edu/server/api/core/bitstreams/ ab28c5c1-1683-404c-92e3-818b44593c2e/content.
- Filchenko, Andrei 2012, Continuity of Information Structuring Strategies in Eastern Khanty. – Argument Structure and Grammatical Relations. A Crosslinguistic Typology, Amsterdam: John Benjamins, 115–131. https://doi.org/ 10.1075/slcs.126.05fil.
- Foley, William A. 1998, Symmetrical Voice Systems and Precategoriality in Philippine Languages. https://zenodo.org/records/5336774.
- G i l d e a, Spike & Z ú ñ i g a, Fernando 2016, Referential Hierarchies: A New Look at Some Historical and Typological Patterns. Linguistics 54:3, 483—529. https://doi.org/10.1515/ling-2016-0007.
- G i v ó n, Talmy 1983, Topic Continuity in Discourse. A Quantitative Cross-Language Study, Amsterdam—Philadelphia: John Benjamins Publishing. https://doi.org/10.1075/tsl.3.
- 1994, Introduction. Voice and Inversion, Amsterdam—Philadelphia: John Benjamins, 3—44. http://dx.doi.org/10.1075/tsl.28.
- G o d d a r d, Ives 1990, Aspects of the Topic Structure of Fox Narratives: Proximate Shifts and the Use of Overt and Inflectional NPs. — International Journal of American Linguistics 56:3, 317–40. https://doi.org/10.1086/466161.
- G u l y a, János 1970, Aktiv, Ergativ und Passiv im Vach-Ostjakischen. Symposion über Syntax der uralischen Sprachen, Göttingen: Van den Hoock and Ruprecht, 80–83.
- Gundel, Jeanette K. & Hedberg, Nancy & Zacharski, Ron 1993, Cognitive Status and the Form of Referring Expressions in Discourse. – Language 69:2, 274–307. https://doi.org/10.2307/416535. Haspelmath, Martin 2011, On S, A, P, T, and R as Comparative Concepts
- H a s p e l m a t h, Martin 2011, On S, A, P, T, and R as Comparative Concepts for Alignment Typology. — Linguistic Typology 15:3, 535—567. https://doi.org/ 10.1515/lity.2011.035
- H a u d e, Katharina & Z ú ñ i g a, Fernando 2016, Inverse and Symmetrical Voice: On Languages with Two Transitive Constructions. – Linguistics 54:3, 443–481. http://dx.doi.org/10.1515/ling-2016-0009.
- H e i m, Irene 1982, The Semantics of Definite and Indefinite Noun Phrases. Doctoral dissertation, University of Massachusetts, Amherst. https://semanticsarchive.net/Archive/jA2YTJmN/Heim%20Dissertation%20with%20Hyperlinks.pdf.
- H o n t i László 2022, Az ősi uráli tárgyragok története és vesszőfutása. Accusatum et expulsum, Budapest: Tinta Könyvkiadó (Segédkönyvek a nyelvészet tanulmányozásához 226).
- J a n h u n e n, Juha 2020, Grammaticalization in Uralic as Viewed from a General Eurasian Perspective. — Cross-Linguistic Variation and Universal Tendencies, Berlin—Boston: de Gruyter, 361—398. https://doi.org/10.1515/9783110563146-007.
- K a m p, Hans 1981, A Theory of Truth and Semantic Interpretation. Formal Methods in the Study of Language. Proceedings of the Third Amsterdam

Colloquium, Amsterdam: Mathematical Center, 277–322. https://doi.org/10.1515/9783110867602.1.

- K a r t t u n e n, Lauri 1976, Discourse Referents. Syntax and Semantics, Vol. 7. Notes from the Linguistic Underground, New York: Academic Press, 363— 385. https://doi.org/10.1163/9789004368859\_021.
- K i b r i k, Aleksandr E. 1997, Beyond Subject and Object: Toward a Comprehensive Relational Typology. — Linguistic Typology 1, 279—346. https:// doi.org/10.1515/lity.1997.1.3.279
- K l a i m a n, Miriam 1991, Grammatical Voice, Cambridge: Cambridge University Press.
- 1993, The Relationship of Inverse Voice and Head-Marking in Arizona Tewa and other Tanoan languages. — Studies in Language 17:2, 343—370. https://doi.org/10.1075/sl.17.2.04kla.
- K o g a, Hiroaki & O h o r i, Toshio 2008, Reintroducing Inverse Constructions in Japanese. The Deictic Verb *kuru* 'to come' in the Paradigms of Argument Encoding. — Investigations of the Syntax-Semantics-Pragmatics Interface, Amsterdam: John Benjamins (Studies in Language Companion Series 105), 37-57. http://dx.doi.org/10.1075/slcs.105.07kog
- K u l o n e n, Ulla-Maija 1989, The Passive in Ob-Ugrian, Helsinki: Suomalais-Ugrilainen Seura (MSFOu 203).
- K u n o, Šusumo 1972, Functional Sentence Perspective: A Case Study from Japanese and English. — Linguistic Inquiry 3, 269—320.
- L a m b r e c h t, Knud 1994, Information Structure and Sentence Form: Topic Focus and the Mental Representation of Discourse Referents, Cambridge: Cambridge University Press. https://doi.org/10.1017/cbo9780511620607.
- M i t h u n, Marianne 2007, Integrating Approaches to Diversity: Argument Structure on the NW Coast. — Diversity in Language: Perspectives and Implications, Stanford, CA: CSLI Publications, 9–36.
- Muravyev, Nikita 2023, Passive in Kazym Khanty and the Interaction of Givenness, Topicality and Animacy. LU LIX, 49–66.
- N e a l e, Stephen 1990, Descriptions, Cambridge, MA: The MIT Press. http:// dx.doi.org/10.4324/9780415249126-X011-1.
- N i c h o l s, Johanna 1992, Linguistic Diversity in Space and Time, Chicago: University of Chicago Press. https://doi.org/10.7208/chicago/9780226580593.001.0001.
- N i k o l a e v a, Irina 1999, Östyak, München: LINCOM Europa. – 2001, Secondary Topic as a Relation in Information Structure. – Linguistics 39:1, 1–50. https://doi.org/10.1515/ling.2001.006.
- N i k o l a e v a, Irina & B á r á n y, András 2019, Proximate Possessors. Prominent Internal Possessors, Oxford: Oxford University Press, 228–258. http://dx.doi.org/10.1093/oso/9780198812142.003.0008
- R u s s e l ĺ, Bertrand 1905, On Denoting. Mind, Volume XIV:4, 479–493, https://doi.org/10.1093/mind/XIV.4.479.
- S h i b a t a n i, Masayoshi 1985, Passives and Related Constructions: A Prototype Analysis. Language 61:4, 821—848. https://doi.org/10.2307/414491.
  - 2003, Directional Verbs in Japanese. Motion, Direction and Location in Languages, Amsterdam: John Benjamins, 259–286. http://dx.doi.org/10.1075/ tsl.56.19shi.
- S o s a, Sachiko 2017, Functions of Morphosyntactic Alternations, and Information Flow in Surgut Khanty Discourse, Helsinki: University of Helsinki doctoral dissertation. https://helda.helsinki.fi/server/api/core/bitstreams/24971e30-3490-485d-a0e8-cd1ca959e95a/content.
- S t e i n i t z, Wolfgang 1950, Ostjakische Grammatik und Chrestomatie mit Wörterverzeichnis, Leipzig: Otto Harrassowitz. https://doi.org/10.1515/9783112640142.
- Thompson, Chad L. 1994, Passive and Inverse Constructions. Voice and Inversion, Amsterdam—Philadelphia: John Benjamins Publishing, 47—63. https://doi.org/10.1075/tsl.28.05tho.
- Virtanen, Susanna 2014, Pragmatic Direct Object Marking in Eastern Mansi. – Linguistics 52:2, 391–413. http://dx.doi.org/10.1515/ling-2013-0067.
- Z u ñ i g a, Fernando 2006, Deixis and Alignment: Inverse Systems in Indigenous Languages of the Americas, Amsterdam: John Benjamins Publishing (Typological Studies in Language 70). https://doi.org/10.1075/tsl.70

- Кошкарёва Н. Б. 2002, Коммуникативная парадигма хантыского предложения. Языки коренных народов Сибири. Вып. 12, Новосибирск, 29-44.
- Михайлов, С. К. 2024, Семантика севернохантыйского салиентного артикля: определенность, салиентность и обвиация. ВЯ, № 1, 7—38. http://dx.doi.org/10.31857/0373-658X.2024.1.7-38.

#### НИКИТА МУРАВЬЕВ (Гамбург)

#### ПОЯВЛЕНИЕ ИЕРАРХИЧЕСКОГО КОДИРОВАНИЯ В СЕВЕРНОХАНТЫЙСКОМ ЯЗЫКЕ: СРАВНИТЕЛЬНОЕ ИССЛЕДОВАНИЕ НА ОСНОВЕ ДИАЛЕКТНОГО КОРПУСА

В статье рассматривается морфосинтаксическое кодирование ядерных аргументов в севернохантыйском языке, в частности параметры активного/пассивного залога и субъектного/объектного спряжения. Цель исследования — предложить более детальное понимание стратегий кодирования в севернохантыйских диалектах. В качестве материала использованы 4320 переходных клауз на четырех северных хантыйских диалектах: обдорском, шурышкарском, тегинском и казымского, извлеченные из доступных корпусов. Материал размечен вручную по параметрам лица, одушевленности, референтного статуса и топикальности. Анализ выяывил различную степень иерархического кодирования в севернохантыйских диалектах, возрастающую с севера на юг. Это позволяет предположить, что севернохантыйский язык исторически прошел путь развития от номинативного/аккузативного через симметричное кодирование, которое можно в остаточном виде наблюдать в обдорском диалекте и в восточнохантыйском языке, к частично иерархическому кодированию, наиболее выраженному в казымском диалекте.

NIKITA MURAVJOV (Hamburg)

### PÕHJAHANDI HIERARHILISE JOONDUSE TEKKEST: MURDEKORPUSPÕHINE VÕRDLEV UURIMUS

Artiklis vaadeldakse põhjahandi Obdorski, Šurõškari, Tegi ja Kazõmi murde korpuste põhjal tuumargumentide morfosüntaktilist kodeerimist, keskendudes aktiivile ja passiivile ning subjektiivsele ja objektiivsele konjugatsioonile. Analüüsist selgub, et põhjahandi murretes on hierarhilist joondust erineval määral: selle esinemus sageneb põhjast lõuna suunas. Põhjahandi murretes on algne nominatiivne/akusatiivne joondus asendunud sümmeetrilise joondusega, mida leidub Obdorski murdes ja ka idahandi murrestes. Edaspidi tekkis sümmeetrilisest joondusest hierarhiline joondus, mida esineb ennekõike Kazõmi murdes.