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**A Polysynthetic Language in Contact: The Case of  
Ket**

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# A Polysynthetic Language in Contact: The Case of Ket

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## Abstract

Ket is one of the most enigmatic polysynthetic languages in North Asia. The majority of structural features complicating a clear-cut typological analysis of Ket are due to the long-term contact with the languages of a radically different type that resulted in a peculiar process of structural mimicry (or ‘typological accommodation’ in Vajda’s (2017) terms).

The mimicry is most evident in the verbal morphology, which is traditionally regarded as almost exclusively prefixing. While this is true for the oldest layer of verbs with the main lexical root in the final position, Ket’s most productive patterns of verb formation clearly imitate suffixal agglutination typical of the surrounding languages by placing the main lexical root in the initial position with the rest of morphemes following it.

This presentation aims to demonstrate that this phenomenon is also attested at the syntactic level. Prototypical polysynthetic languages are largely devoid of overt subordination (cf. Baker 1996). Ket, however, signals adverbial subordination by using postposed relational morphemes attached to fully finite verbs. This pattern is common to adverbial clauses in the neighboring languages, the difference being that they attach relational morphemes to non-finite forms only.

This functional-structural parallel is likewise attested in relative clauses. The surrounding languages share a common relativization pattern involving preposed participial relative clauses with a ‘gapped’ relativized noun phrase (Pakendorf 2012). This resembles the major relativization pattern in Ket, in which, however, preposed relative clauses are fully finite.

Formation of adverbial and relative clauses in Ket clearly mimics that of the surrounding languages and does not conform to the expected ‘polysynthetic’ pattern. At the same time, Ket resists accommodating a participle-like morphology, which can be connected with the general tendency among polysynthetic languages not to have truly non-finite forms (cf. Nichols 1992).

## References:

- Baker, M. (1996) *The Polysynthesis Parameter*. New York: Oxford University Press.  
Nichols, J. (1992) *Linguistic Diversity in Space and Time*. Chicago: Chicago University Press.  
Pakendorf, B. (2012) Patterns of relativization in North Asia: towards a refined typology of prenominal participial relative clauses. In: Volker Gast and Holger Diessel (eds.), *Clause Linkage in Cross-Linguistic Perspective*. Data-Driven Approaches to Cross-Clausal Syntax, 253-283. Berlin: Mouton de Gruyter.  
Vajda, E. (2017) Patterns of innovation and retention in templatic polysynthesis. In: Fortescue, M., Mithun, M. and Evans, N. (eds.), *The Oxford Handbook of Polysynthesis*, 363-392. Oxford: Oxford University Press.

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## Introduction

Ket, the last surviving member of the Yeniseian family, is one of the most enigmatic polysynthetic languages spoken in the central part of North Asia. It is known for being quite complex and hard to fit within a single typological account (cf. Anderson 2004; Kotorova and Nefedov 2006). The majority of complications in the case of Ket seem to be connected with a peculiar process of structural mimicry, or ‘typological accommodation’.

The process of typological accommodation in Ket has been described in Vajda (2017; in press) for the phonological and morphological levels. The present paper claims that in addition to these levels, the phenomenon of structural mimicry is likewise attested at the syntactic level, namely in formation of adverbial and relative clauses.

## Core typological features of the Yeniseian family

The territory of North Asia is home to a large and highly diverse group of peoples. The central part of this area hosts the following distinct genetic language units: Yeniseian, Samoyedic, Ob-Ugric, Tungusic, and Turkic.

Apart from Yeniseian, all major linguistic families in the area, i.e. Turkic, Tungusic, Samoyedic and Ob-Ugric, conform to a common typological profile: these languages are non-tonal, suffixing and agglutinating. By contrast, the typical grammatical and phonological characteristics of the Yeniseian languages demonstrate a completely different picture: they are tonal, prefixing and polysynthetic. All these features are genuinely Yeniseian, which means they can be traced back to the Proto-Yeniseian stage. A closer inspection, though, reveals that over the centuries they have undergone, at least in Modern Ket, some peculiar modifications mimicking the dominant language type in the surrounding languages. Let us consider these Yeniseian features in order.

First of all, there are four phonemic tones registered in Ket and Yugh. Example (1) provides an illustration of the tones in Ket with their Yugh counterparts respectively.

(1)	Ket	Yugh		
	qām	χām	‘arrow’	(high)
	dēʔ dēʔ	‘lake’	(laryngealized)	
	hīl fīl	‘gut’	(rising/falling)	
	qə̀j χə̀h:j	‘bear’	(falling)	

It seems impossible to prove the existence of such tonemic distinctions for the other Yeniseian languages, because there are no actual audio recordings. But systematic peculiarities in the transcription of these languages from the 18th and 19th centuries show rather convincingly that they had at least high and laryngealized tones, too (cf. Verner 1990).

Another core feature of the Yeniseian family not found in the neighboring languages is possessive prefixes. These prefixes are capable of reflecting person, number and gender class. Examples (2) and (3) illustrate these prefixes in Ket and Kott.

(2) Ket  
 naqu<sup>2</sup>s<sup>i</sup>  
 na-qu<sup>2</sup>s  
 3an.pl.poss-tent  
 ‘Their birch-bark tent’

(3) Kott  
 ŋo:p  
 ŋ-o:p  
 1sg.poss-father  
 ‘my father’

The most prominent typological feature of Yeniseian is prefixing polysynthetic verbal morphology. Figure 1 illustrates a tentative position model of the Proto-Yeniseian verb reconstructed by Vajda (2008). It is important to stress that the Proto-Yeniseian verbal root was always in final position preceded by a string of morphemes conveying personal cross-reference, TAM properties, animacy, and so on.

morphemes outside the phonological verb		P4	P3	P2	P1	verb base (bare root or verb deriving prefix <i>d</i> , <i>l</i> + root)
Subject NP	verbal complement (adverb, object NP)	shape classifier ( <i>d</i> , <i>n</i> , <i>h<sup>w</sup></i> , etc.)	animacy classifier: <i>d</i> (AN), <i>b</i> (N)	tense, mood, aspect (originally auxiliary verb <i>s</i> , <i>ʧa</i> , <i>a</i> , <i>o</i> + suffix <i>l</i> , <i>n</i> )	undergoer subject agreement (1 or 2 p)	

Figure 1. Proto-Yeniseian finite verb

Regarding polysynthetic properties, verbs in the Yeniseian languages perfectly fit the generally accepted definition of polysynthetic verbs with obligatory pronominal marking of the arguments and incorporation, so that they can serve alone as ‘a free-standing utterance without reliance on context’ (Evans and Sasse 2002: 3). Example (4) contains a Ket verb form that cross-references two arguments, while in example (5) you can see a Yugh verb form with an incorporated object.

(4) dbilbet1  
 d{i}8-b3-l2-bed0  
 1sg8-3n3-pst2-make0  
 ‘I made it.’

(5) daχusi rgeɬi  
 da14-qus13-d3-ked0  
 3f14-tent13-pst3-make0  
 ‘She made a birch-bark tent.’

Similar features in the verbal system can be found in the rest of the Yeniseian languages as well, cf. the Kott finite verb form in (6).

(6) *bapajaŋ*

*b5-a4-paj0-aŋ-3*

*3n5-npst4-make0-1sg-3*

'I make it.' (Werner 1998: 132)

As we mentioned above, over the course of the century-long contact with the surrounding languages, these core Yeniseian features have adapted themselves in a peculiar way. The uniqueness of Modern Ket grammar seems to be largely a result of this adaptation.

### Typological accommodation

Typological accommodation is distinct from more traditional terms such as 'metatypy' or 'grammatical calquing', since accommodation does not represent a replacement of an original feature but rather its adaptation to a different morphological type creating a rather unique hybrid structure (Vajda, in press).

Due to the lack of space, I will limit the introduction of typological accommodation to describing only one case of its manifestation at the morphological level in Ket. For a more detailed description of this process at the morphological and phonological levels, consider Vajda (2017; in press), Nefedov (2015: 256-258).

#### Typological accommodation at the morphological level

A rather straightforward case of typological accommodation can be found in the verbal morphology of Modern Ket. Figure 2 illustrates a position model of the Modern Ket verb, as presented in Nefedov and Vajda (2015: 36).

P8	P7	P6	P5	P4	P3	P2	P1	P0	P-1
AGR or thematic valence reducing affix	1) left semantic head or 2) noun, adj, or adverb root	AGR	thematic consonant (most are seman- tically opaque)	<i>tense/</i> <i>mood</i> or AGR	AGR or thematic non- agreement affix	<i>past tense/</i> <i>imperative</i>	AGR or thematic valence reducing affix	1) right semantic head or 2) aspect/voice auxiliary)	AGR (in verbs that use P8 for subject)

Figure 2. Position model of the Modern Ket verb

Modern Ket verbs can be conventionally divided into right-headed and left-headed, depending on the position of the semantic root (head). In right-headed verbs the semantic head always occupies the rightmost position (slot P0), with a string of affixes preceding it, similar to

the Proto-Yeniseian verb described above. Verbs of this type constitute the oldest layer of verbs in the language and belong to currently unproductive patterns. An example of a right-headed verb is provided in (7).

- (7) dáŋgèj  
 d{i}8-aŋ6-q2-ej0  
 18-3an.pl6-pst2-kill0  
 ‘I killed them’

All the productive verb patterns in Modern Ket, however, are exclusively left-headed, i.e. with the semantic head being placed at the leftmost margin (slot P7), so that the positions that follow it might be regarded as a string of suffixes. The original root position (slot P0) in the left-headed verbs contains a marker of transitivity or aspect, originating from a semantically eroded verb root, as in example (8).

- (8) déjaŋgòlbet  
 d{u}8-ej7-aŋ6-k5-o4-l2-bed0  
 38-kill.anom7-3an.pl6-th5-pst4-pst2-iter0  
 ‘He was killing them.’

Verbs of this type clearly tend to imitate the suffixing structures dominant in the surrounding languages. Nonetheless, as Vajda (in press) notes, despite this rearrangement of the semantic head from final to initial position, the presence of the original root position is obligatorily required in every left-headed verb. Such behavior is not usually associated with prototypical suffixes, and therefore it is not really appropriate to analyze these verbs as suffixing.

#### Typological accommodation at the syntactic level

In addition to phonology and morphology, typological accommodation in Modern Ket can be observed at the syntactic level, with regard to formation of subordinate constructions. There is a very well known cross-linguistic generalization about polysynthetic languages claiming that they are largely devoid of overtly marked subordination (Mithun 1984). Baker (1996: 491) in his study of polysynthetic languages makes an even stronger claim that polysynthesis is not compatible with the existence of nonfinite clauses at all. Typological studies also show that there is a tendency among polysynthetic languages not to have truly non-finite forms (cf. Nichols 1992).

In general, in the majority of polysynthetic languages, subordinate constructions represent two juxtaposed independent clauses with fully finite syntax. Therefore, it seems fair to say that the tendency to avoid non-finite forms and to use fully finite verbs in complex constructions is a core feature of a polysynthetic language. So, from the point of view of a prototypical polysynthetic language one would expect Ket to have subordinated structures in the form of formally independent strings of clauses. and indeed there are such constructions in the language. For example, they are frequent with various types of complement taking predicates

(Nefedov 2015: 123-124). At the same time, in addition to such paratactical constructions, Ket exhibits a rather wide range of formally distinct subordinating structures, especially in the realm of adverbial clauses. Not surprisingly, these structures clearly resemble subordinate constructions in the other languages of North Asia. However, the important difference is that in these constructions Ket tends to use fully finite verbs, while the surrounding languages favor non-finite constructions (Čeremisina et al. 1986; Anderson 2004).

#### Adverbial clauses

One of the distinctive features of the languages in North Asia is the use of case morphology to mark various functional types of adverbial relations. Such case-marked subordinate constructions are reported in almost all languages surrounding Ket, but to varying degrees (Anderson 2004: 65). In these constructions, cases usually attach to various kinds of non-finite verb forms. In Tungusic and Turkic languages, for example, these are participles, as can be seen in examples (9)-(10) below.

#### (9) Evenki, Tungusic

minduk pektüre:vunme ganadukin bega ittenen  
 min-duk pektüre:vun-me ga-na-duk-in bega itten-e-n  
 I-abl gun-acc take-ptcp-abl-3 month pass-nfut-3  
 ‘A month had passed since he took my gun from me.’ (Nedjalkov 1997: 51)

#### (10) Tuvan, Turkic

men kelgenimde ažiłdaarmen  
 men kel-gen-im-de ažiłdaarmen  
 1sg come-pst.ptcp-1-loc work-pres/fut1  
 ‘When I come (here), I work’ (Anderson and Harrison 1999: 73) In the Selkup subordinate structures, case marking appears on various verbal nouns as in (11).

#### (11) Selkup, Southern Samoyedic

qumitit kit qanti tüptääqin čiasiq esikka  
 qum-itit kit qan-ti tü-ptää-qin čiasiq es-ikka  
 person-pl river bank-ill come-vn-loc cold become-hab.3.past  
 ‘When the people were approaching the river, it was getting cold.’ (Anderson 2004: 67)

Finally, in Eastern Khanty, there are examples, although they seem to be quite rare, in which the locative case marker attaches to a converb to form a subordinate construction as in (12).

#### (12) Eastern Khanty, Ob-Ugric

tʃimlali amisminnə, ni mənäyən juɣatə  
 tʃiml-ali amis-min-nə ni mənä-yən juɣa-tə

a.little-dim sit-cvb-loc woman go-pst0.3sg gather.woods-pst0.3sg

‘After sitting awhile, the woman went off to gather firewood’ (Filchenko 2010: 470)

Adverbial clauses in Ket make use of postposed relational morphemes in much the same fashion as in the above examples. However, while these languages attach relational morphemes to non-finite forms, in Ket these morphemes are attached to fully finite verbs, as is illustrated in the following example.

(13) *ām dətəʁət-ka ʌtn bōn dasqansʌn*

*ām da8-t5-a5-ɣut0-ka ʌtn bōn d{i}8-asqan7-s2-a0-n-1*  
 mother 3f8-th5-npst4-lie0-loc 1pl not 18-stories7-npst2-speak0-an.pl-1

‘When mother sleeps, we don’t speak.’ (Nefedov 2015: 171)

#### Relative clauses

Such functional-structural correspondence between non-finite forms in the surrounding languages and finite verbs in Ket is likewise attested in relative clauses. As shown in a study by Pakendorf (2012), Turkic, Tungusic and Uralic<sup>2</sup> languages share a common relativization pattern. It involves preposed participial relative clauses with a ‘gapped’ relativized noun phrase. The examples below illustrate this strategy in some of the languages surrounding Ket.

(14) Evenki, Tungusic

*bi Turudu alaguvdʒarildu asatkardu meŋurve bu:m*  
*bi Turu-du alaguv-dʒari-l-du asatka-r-du meŋur-ve bu:-m*  
 1sg T.-dat study-sim.ptcp-pl-dat girl-pl-dat money-acc give.nfut-1sg

‘I gave money to the girls who study in Tura.’ (Pakendorf 2012: 258)

(15) Tuvan, Turkic

*bistiŋ dū:n čora:n čerivis čaraš boldu*  
*bistiŋ dū:n čor-a:n čer-ivis čaraš bol-du*  
 1pl.gen yesterday go-ppt place-poss.1pl beautiful be-pstII.3sg

‘The place we went yesterday was beautiful.’ (Anderson and Harrison 1999: 20)

(16) Selkup, Samoyedic

*qorqit qətpiʌ ɔ:tæ*  
*qorqi-t qət-piʌ ɔ:tæ*  
 bear-gen kill-pst.ptcp reindeer-nom

‘a reindeer killed by a bear’ (Spencer 2013: 389)

(17) Eastern Khanty, Ob-Ugric

<sup>2</sup> Both the Samoyedic and Ob-Ugric languages are traditionally considered a part of the Uralic language family (cf. Sinor 1988).

mä wermäl rit

mä wer-m-äl rit

1sg do-pp-3sg canoe

‘The canoe that I’ve made.’ (Filchenko 2010: 466)

This closely resembles the major relativization pattern in Modern Ket (cf. Nefedov 2015: 220), the only difference being that Ket usually makes use of finite verbs in the same way as the languages above use participles, see for example (18).

(18) āt āp dutaxət bisəp tsitejqajit

ād āb du8-t5-a4-qut0 biseb

d{i}8-sitej7-q5-a4-it0

1sg 1sg.poss3m8-th5-npst4-be.in.position0 sibling

18-wake7-th5-3m4-mom0

‘I wake up my sleeping brother.’ (Nefedov 2015: 262)

As can be seen from these examples, formation of adverbial and relative clauses in Ket clearly imitates that of the surrounding languages and does not conform to the expected ‘polysynthetic’ pattern. At the same time, Ket adverbial and relative clauses resist accommodating a participle-like morphology and remain fully finite, which reflects the general tendency among polysynthetic languages not to have truly non-finite forms (cf. Nichols 1992; Baker 1996).

## Conclusion

In this paper, we considered Ket, a polysynthetic language belonging to the Yeniseian language family, in the areal environment of North Asia. Surrounded by languages of a radically different typological profile, Ket has undergone a number of very interesting changes. This centuries-long contact has made significant influence on the core typological traits of the Ket grammar that have no analog in the area, creating a rather unique structural hybrid.<sup>3</sup> As we have shown, in addition to the phonological and morphological levels, the result of structural mimicry can be observed at the syntactic level, namely, in the domain of subordinate constructions. This tendency to retain a fully finite verb in subordinate constructions structurally similar to those with non-finite verbs in the other languages of the area is a further evidence supporting the idea about the hybrid nature of Ket grammatical structure where alongside an overlay of areal features the core features have remained intact.

## References:

- Anderson, G. (2004) The languages of Central Siberia: Introduction and overview. In: *Languages and prehistory of Central Siberia*, edited by Edward Vajda, 1-123. Amsterdam and Philadelphia: John Benjamins.
- Anderson, G. D. S. and Harrison, D. K. (1999) *Tyvan*. München: Lincom Europa.
- Baker, M. (1996) *The Polysynthesis Parameter*. New York: Oxford University Press.
- Čeremisina, M. I., Brodskaja, L. M. Skribnik, E. K. et al. (1986) *Strukturnye tipy sintetičeskix polipredikativnyx konstrukcij v jazykax raznyx system*. Novosibirsk: Nauka.

<sup>3</sup> Interestingly, over the centuries Ket has remained resistant to lexical borrowings from the surrounding languages and is one of the languages with the lowest borrowing rate in the basic vocabulary according to the data of The World Loanword Database [available Online at <http://wold.cld.org/vocabulary/18>, accessed on 2015-02-16].

- Evans, N. and Sasse, H. J. (2002) Introduction: problems of polysynthesis. In *Problems of polysynthesis*, edited by Nicholas Evans and Hans-Jürgen Sasse, 1–14. Berlin: Akademie Verlag.
- Filchenko, A. Y. (2010) *Aspects of the grammar of Eastern Khanty*. Tomsk: Izdatel'stvo Tomskogo gosudarstvennogo pedagogičeskogo universiteta.
- Kotorova, E., and Nefedov, A. (2006) Tipologičeskie xarakteristiki ketskogo jazyka: veršinnoe ili zavisimostnoe markirovanie? *Voprosy jazykoznanija*, 5: 43-56.
- Mithun, M. (1997) How to avoid subordination. In *Proceedings of the tenth annual meeting of the Berkeley linguistics society*, 493-523. Berkeley, CA: University of California Press, 1984.
- Nedjalkov, I. (2013) *Evenki*. London: Routledge.
- Nefedov, A. (2015) *Clause linkage in Ket*. Utrecht: LOT.
- Nefedov, A., and Vajda, E. (2015) Grammatical sketch. In *Comprehensive Dictionary of Ket with Russian, German and English translations*, edited by Elizaveta Kotorova and Andrey Nefedov, 27-69. München: Lincom Europa, .
- Nichols, J. (1992) *Linguistic Diversity in Space and Time*. Chicago: Chicago University Press,
- Pakendorf, B. (2012) Patterns of relativization in North Asia: towards a refined typology of prenominal participial relative clauses. In *Clause Linkage in Cross-Linguistic Perspective. Data-Driven Approaches to Cross-Clausal Syntax*, edited by Volker Gast and Holger Diessel, 253-283. Berlin: Mouton de Gruyter.
- Sinor, D. (ed). (1988) *The Uralic languages. Description, history and foreign influences*. Leiden: E.J.Brill.
- Spencer, A. (2013) *Lexical Relatedness: a Paradigm-based Model*. Oxford: Oxford University Press.
- Vajda, E. (2008) *The Siberian origin of the Na-Dene languages*. Lecture presented at Dene-Yeniseic Symposium, February 26-29, Fairbanks and Anchorage, Alaska.
- Vajda, E. (2017) Patterns of innovation and retention in templatic polysynthesis. In *The Oxford Handbook of Polysynthesis*, edited by Michael Fortescue, Marianne Mithun, and Nicholas Evans, 363-392. Oxford: Oxford University Press.
- Vajda, E. (in press) Yeniseian substrates and typological accommodation in Central Siberia. In *Hunter-gatherers and linguistic history: a global perspective*, edited by Tom Güldemann, Patrick McConvell, and Rich Rhodes (eds.).
- Verner, G. (=Werner, Heinrich). (1990) *Sravnitel'naja fonetika enisejskix jazykov*. Taganrog: Izdatel'stvo Taganrogskogo gosudarstvennogo pedagogičeskogo instituta.
- Werner, H. (1997) *Das Jugische (Sym-Ketische)*. Wiesbaden: Harrassowitz Verlag. (=Veröffentlichungen der Societas Uralo-Altaica 50).
- Werner, H. (1998) *Probleme der Wortbildung in den Jenisej-Sprachen*. München: Lincom Europa (=Lincom Studies in Asian Linguistics 25).