Plural quantification in Kazym Khanty

Alexandra Shikunova, Daria Sidorkina

HSE University, Moscow

Conference on Typology and Grammar for Young Scholars
Nov 25th 2022

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Introduction

Possessives, plurals and quantifiers

Possessive markers appear on noun bases as well as on numerals (1) and quantifiers (2) in some languages.

(1) *(Biz) *iki-miz* *kazan-dı-*(k)*
(1PL) two-POSS.1PL won-PST-*(1PL)

'The two of us won.' (Turkish; Satik 2021)

(2) *Bazı-lar-ımız* *davetli/* **davetli-yiz.*
some-PL-POSS.1PL invited-COP.3SG invited-COP.1PL

'Some of us are invited.' (Turkish; Özyıldız 2017)

Possessives, plurals and quantifiers

Possessives on pronouns and quantifiers occur in Uralic languages as well; the possessives' meaning is associative (Serdobolskaya 2019)

(3) … *stud'ent-jos so obš'ežit'ij-iš't-âz* ***markeos-se***
… student-PL that dormitory-EL-P.3SG) **what-INDEF-PL-ACC.P.3SG**
pot'-t'a-l-o luškem.
snuck-PRS.3PL тайком

'… students snuck something to the dorm a lot.' (ibid.; Udmurt)

(4) ***kod-sə*** *te boš't-a-n pon-sə al'i*
who-ACC.P.3SG you take-NPST-3SG dog-ACC.P.3SG or
kan'-sə?
cat-ACC.P.3SG

'Whom will you take with you - a dog or a cat?' (ibid.; Komi)

Khanty possessives on quantifiers

Khanty (<Ugric<Uralics) possessive markers can appear on:

1. question words, e.g. *xuj* ‘who’;
2. indefinite *xujat* ‘somebody’;
3. negative pronouns, e.g. *nɛm χujat* ‘nobody’.

Possessors of pronouns are possessor of groups that are the quantification domain (5–7).

(5) *xuj-en*
who-P.2SG
‘who of yours’

(6) *xuj-at-en*
who-INDEF-P.2SG
‘some of yours’

(7) *nɛmχujat-en*
nobody-P.2SG
‘none of yours’

‘Yours’ can refer to friends, relatives or some other group associated with the possessor.

Question words

Number marking on question words affects possible answers: a question with a singular *who* can have a singular or a plural answer.

(8) **Singular marking**

χujt-en	*ɵkɵrət*	*χir-ti*	*juχət-əλ?*
who-POSS.2SG	garden	dig-NFIN.NPST	go-NPST[3SG]

‘Who (of yours) will come to dig up the garden?’

OK Wasya will come

OK Wasya, Masha and Petya will come

Question words

Plural question word demands a plural answer or a focus particle *tөp* ‘only’ with a singular answer.

(9) **Plural marking**

χujti-λ-an	*өkөrət*	*χirti*	*juχət-λ-ət?*	*waśaj-en*
who-PL-POSS.2SG	garden	dig	go-NPST-3PL	Wasya-POSS.2SG

**(tөp)*	*juχat-əλ*
only	go-NPST[3SG]

‘Who (of yours) will come to dig up the garden?’

OK *(only) Wasya will come

OK Wasya, Masha and Petya will come

Indefinite

Plural/dual on the indefinite denotes a bigger group (11).

(10) *χuj-at-ət* *umlɛp-a* *jăŋχ-s-ət*
who-INDEF-PL well-DAT go-PST-3PL

‘Somebody (several people) went to the well.’

(11) *mʉŋ* *χuj-at-ŋəλ-əw* *wөš-s-ət* *antө*
we who-INDEF-DU-POSS.1PL get_lost-PST-3PL NEG.EX

Context: *The news is that two lost children were found in the woods.*
‘Have any two of ours gotten lost?’

Negative pronouns

Plural number on *nɛm χujat* ‘nobody’ seemingly makes no contribution to the truth conditions of a sentence (12).

(12) a. *nɛm xujat-λ* *juxt-əs*
nobody-POSS.3SG come-PST[3SG]

b. *nɛm xujat-λ-aλ* *juxt-s-ət*
nobody-PL-POSS.3SG come-PST-3PL

‘Nobody came.’

Inanimate *nɛmλ(t)* ‘nothing’ can attach possessives but no number markers (13).

(13) *nɛmλt-ɛm* *ăn* *wotš-əs-əm*
ничего-POSS.1SG NEG потерять-PST-1SG

***Context**: someone asks if I have lost any of my stuff on the way.*
‘I didn’t lose anything.’ (lit. ‘None of mine has been lost.’)

The puzzle of ‘nobody’

PL is never obligatory; PL-marked *nɛm χujat* ‘nobody’ can denote both atoms and sets.

(14) a. *nɛm χujat-əλ* *ăn* *jaƙ-əλ*
nobody-POSS.3SG NEG dance-NPST[3SG]

b. *nɛm χujat-λ-aλ* *an* *jaƙ-λ-ət*
nobody-PL-POSS.3SG NEG dance-NPST-3SG

***Context**: kids at the prom are standing in pairs, but…*
‘Nobody is dancing.’

How can we explain this?

Number marking

Khanty number morphology

Number marking is obligatory only for (a) NPs denoting people or (b) animate NPs in subject position (Pisarenko 2020).

	SG	DU	PL
no POSS	∅	ŋən	ət
with POSS	∅	nəʎ	ʎ

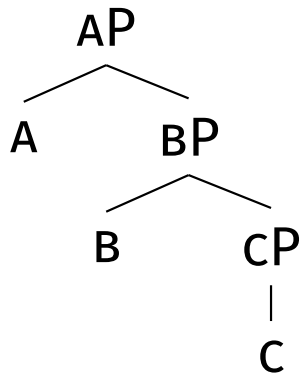
What can morphological patterns reveal about semantics?

Framework: Nanosyntax

- Every lexical item is associated with a phonological form, a semantic representation and an L-tree (15)
- L-trees spell out structures built of features in a cyclic manner (Caha 2009, Starke 2018)
- Key observations for Nanosyntax: semantic compositionality, syncretism, containment

(15) a. **Phonological form**: /babasha/

b. **Syntactic structure (L-tree)**:



c. **Conceptual structure**: A TOY RABBIT

Number marking typology: Caha (2022)

Number morphology in pseudo-partitive constructions, noun-numeral constructions and plurals exhibits *ABA.

	pseudo-partitive	**noun-numeral**	**plural**	**pattern**
ENGLISH	piece of cake	two cakes	cakes	ABB
TURKISH	bi(r) parça kek-Ø 'piece of cake-SG'	üç kek-Ø three cake-SG	kek-ler cake-PL	AAB
*NON-EXISTESE	half kek-s 'piece of cake-PL'	three kek three cake-SG	kek-s cake-PL	*ABA

Feature semantics

Caha (2022): morphology reflects semantics

- MASS – denotes mass entities
- CLASS – divides mass into non-overlapping atomic units
- PL – denotes non-singular subsets of atoms
- MIN – the smallest units in a domain

Deriving the meanings:

- **pseudo-partitive**: [MassP]
- **noun-numeral**: [ClassP [MassP]]
- **plural**: [PlP [ClassP [MassP]]]
- **singular**: [MinP [ClassP [MassP]]]
- **dual**: [MinP [PlP [ClassP [MassP]]]]

Khanty pattern

Khanty noun-numeral form is syncretic with the pseudo-partitive (AAB).

	pseudo-partitive	**noun-numeral**	**plural**	**pattern**
KHANTY	xătəλ-Ø šəp 'half a day-SG'	xəλəm xătəλ-Ø 'three day-SG'	xătλ-ət 'day-PL'	AAB

Importantly, noun-numeral [ClassP [MassP]] is also syncretic with the singular, so the 'singular' form has a wider domain than the 'plural' (unlike English).

Semantic account

Which is the neutral one?

Plural is number-neutral; singular is singular only.

(16) - Do you have children?
- Yes, I (only) have one.
- ??No, I (only) have one. (Sudo 2019)

In upward-entailing contexts, gets restricted to plural by some pragmatic means

- Anti-Presupposition (Sauerland, Anderssen & Yatsushiro 2005)
- Scalar Implicature (Spector 2007)

Is Khanty different?

The Khanty situation seems different: SG is number neutral, PL is plural only.

(17) **Upward entailing (UE) context**

ńawrɛm-ət	*kʊrt*	*χăr-ij-ən*	*juŋ-λ-ət*
child-PL	village	glade-DIM-LOC	play-NPST-3PL

‘Children are playing near the village.’

(18) **Downward entailing (DE) context**

ńawrɛm	*tăj-λ-ən?*
child	have-PL-3SG

‘Do you have children?’

Hence, nɛm χujat-Ø ‘nobody-SG’ should be available both for atomic and set units of quantification.

Nobodies

Plural is unacceptable for atoms in non-distributive contexts but acceptable for sets.

(19) *nɛm χujat-λ-am* *nuχ* *ănt* *pit-əs-ət*
nobody-PL-POSS.1SG up NEG become-PST-PL

* ***Context 1****: the students took part in a drawing contest (a single winner).*
OK ***Context 2****: the students took part in a team competition.*
'None of mine won.'

The 'singular winner' context blocks distributivity.

Quantification over sets

Both singular and plural number is acceptable for *nɛm χujat* ‘nobody’ in the context of quantification over sets.

(20) *nɛm χujat-λ-aλ/* *nɛm χujat-eλ* *jăm* *aŋki-aśi* *ănt*
nobody-PL-POSS.3SG nobody-POSS.3SG good parents NEG

λʉŋət-λ-aj-ət
consider-NPST-PASS-3PL

***Context**: there are several married couples in our house.*
‘None of them are good parents.’

Conclusions

Conclusions

The following generalisations hold for Khanty:

- Singular number can be number-neutral (the count form), denoting both sets and atoms
- Plural number denotes sets of individuals only
- DE contexts require the number-neutral form (singular)

Future of the research

Further investigation can go several routes:

- Integrating the semantics of the **dual** into our analysis
- Pinpointing the **syntactic status** of *nɛm χujat* ‘nobody’ (negative concord item or not)

Acknowledgements

This talk has been supported by the Basic Research Program at the National Research University Higher School of Economics (HSE University) in 2022.

References I

- Caha, Pavel. 2009. *The nanosyntax of case*. University of Tromsø dissertation.
- Caha, Pavel. 2022. The marking of mass, count and plural denotations in multi-dimensional paradigms. *Studia Linguistica* 76(1). 212–274.
- Özyıldız, Deniz. 2017. Quantifiers in Turkish. In *Handbook of Quantifiers in Natural Language: Volume II*, 857–937. Springer.
- Pisarenko, Denis. 2020. Markirovanie množestvennogo čisla v kazymskom dialekte xantyjskogo jazyka [Plural number marking in Kazym Khanty]. In Xenia Semënova (ed.), *Malye jazyki v bol'šoj lingvistike. sbornik trudov konferencii 2020 [Small languages in big linguistics. book of conference papers 2020]*, 181–185. Moscow: Buki Vedi.
- Satik, Deniz. 2021. Turkic default agreement. In *Proceedings of the Workshop on Turkic and Languages in Contact with Turkic*, vol. 5, 125–139.
- Sauerland, Uli, Jann Anderssen & Kazuki Yatsushiro. 2005. The plural is semantically unmarked. *Linguistic evidence*. 413–434.

References II

- Serdobolskaya, N. 2019. Konstrukcii s posessivnymi suffiksami i kvantifikatorami v permskix jazykax [constructions featuring possessive suffixes and quantifiers in Perm languages]. *Tomskij žurnal lingvističeskix i antropologičeskix issledovanij [Tomsk journal of linguistic and anthropological studies]* (4). 48–66.
- Spector, Benjamin. 2007. Aspects of the pragmatics of plural morphology: On higher-order implicatures. In *Presuppositions and Implicatures in Compositional Semantics*, 243–281. New York: Palgrave-Macmillan.
- Starke, Michal. 2018. Complex left branches, spellout, and prefixes. In *Exploring Nanosyntax*, 239–249. Oxford: Oxford University Press.
- Sudo, Yasutada. 2019. Semantics and pragmatics of number [ms.]