Negative quantification over sums in Kazym Khanty[1]

Background

Formalisation of plural quantification has concerned logicians and philosophers for a long time now (Linnebo 2003, 2004, Uzquiano 2003, Urbaniak 2014). Expressions of the natural language like *Some critics only admire one another* have necessitated adding quantifiers scoping over plural entities to the logical toolkit. Plural quantification, however, is not restricted to existentials and it can occur on universal quantifiers as well (Bartsch 1973, Winter 2002). Quantification over plural and singular entities seems truth-conditionally equivalent at first glance, but, as we are going to demonstrate in our talk, the difference is nevertheless palpable.

Aims and claims

We assume that the semantic contribution of the plural when combined with universal quantifiers is the size of an entity in the quantification domain, meaning that the plural number forces quantification over sets instead of quantification over atoms (Winter 2002). However, the domain of the singular marked negative quantifier in Khanty appears to also include sets as well as atoms.

Data

In Kazym Khanty (Uralic>Finno-Ugric>Khantic), the universal negative quantifier *nɛm χujat* 'nobody' can attach number marking and a possessive marker which signifies that the domain is restricted by a possessive relation (1). Such 'domain-restricting' possessives can also appear on interrogative and indefinite pronouns as well as on numerals. These phenomena have been attested in other Uralic languages too (Serdobolskaya 2019).

(1)   nɛm χujat / nɛm χujat-ew   χʉλ λɛ-ti   wɛr   ăn   tăj-əλ

        nobody   / nobody-POSS.1PL fish eat-NFIN.NPST deed   NEG   have-NPST[3SG]

        'Nobody / none of our (people) eat fish.'

What sets Khanty data apart is the ability of *nɛm χujat* to receive plural marking:

(2)   nɛm χujat-λ-əw   ănt   ńaχ-λ-ət

        nobody-PL-POSS.1PL.   NEG   have-NPST-3PL

        'None of us are laughing.'

The plural marking on *nɛm χujat* is not constrained by distributive/collective properties of the predicate or by its atom/set properties in terms of Winter (2002). It can appear when the reading is distributive (2) and is never obligatory, even with collective predicates:

(3)   [In our house there are several married couples]

        nɛm χujat-λ-aλ   / nɛm χujat-eλ   jăm aŋki-aśi   ănt λʉŋət-λ-aj-ət

        nobody-PL-POSS.3PL / nobody-POSS.3SG good parents   NEG consider-NPST-PASS-3PL

'None of them are good parents.'

To demonstrate that the plural quantifier only ranges over sets, we can block the distributive interpretation with the context in which only one atom or one set is supposed to be chosen – winning the competition with a single winner – an athlete or a team. In such contexts, where when the quantifier ranges over atoms, plural number is unavailable (4).

(4) nɛm χujat-λ-am   nuχ ănt pit-əs-ət
     nobody-PL-POSS.1SG up   NEG   become-PST-PL
     'None of mine won.'
     *Context 1: the students took part in a drawing contest (a single winner).
     ᴼᴷContext 2: the students took part in a competition as teams.

Analysis

Our data suggests that the quantificational domain of *nɛm χujat* includes both sets and atoms, while *nɛm χujat*-PL quantifies over only sets. To account for this distribution we propose that the singular in Khanty is general and underspecified for number, while the plural is restricted to sets. That would also predict the singular marking that appears in questions such as (5).

(5) ńawrɛm   tăj-λ-ən
     child   have-NPST-2SG
     'Do you have children?'

While in downward-entailing environments the domains of plural and singular number overlap, in upward-entailing contexts the use of the singular is restricted to atoms by a pragmatic mechanism – scalar implicature (Spector 2007) or Maximize Presupposition (Sauerland et. al. 2005). Plural marking on universal quantifiers is thus closely linked to the properties of the predicate.

References

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