Two types of conjunction in Tundra Nenets

Introduction Many languages distinguish between morphemes that express conjunction in the nominal vs. verbal or clausal domains (Haspelmath 2004, 2007). We argue that this distinction does not always correspond to the same semantic contrast across languages. In this paper, we present data from Tundra Nenets, a Samoyedic language, based on original fieldwork conducted in the Tundra Autonomous Region. Tundra Nenets has two types of junctors: a general one, applicable across categories and expressed with zero morphology via juxtaposition (Payne 1985; Nikolaeva 2014), and a second one, *njabi*, which appears only with noun phrases. We show that this latter conjunction is sensitive not to the syntactic category of the noun, but to its semantics. Specifically, *njabi* can conjoin proper names or nouns in the restrictor of a quantifier, but it cannot conjoin two quantifiers (e.g., *every*, *all*, *no one*) with each other or with a referential term. This contrasts with languages like Japanese, which also use different markers for nominal and verbal conjunction (Mitrović & Sauerland 2016), but do not appear to draw an analogous semantic distinction. We further show that *njabi*, in the absence of additional elements, receives only a non-distributive reading, again in contrast to Japanese. We propose that *njabi* is best analyzed as the realization of a non-Boolean sum operator in the sense of Link (1983) (see also Massey 1976; Hoeksema 1983).

The two conjunctions: a general description *Njabi* has several uses in the language, specifically, it can mean *other* as in (1) and is a morphological part of the word *second* as in (2), but also functions as a conjunction as exemplified by the title of the traditional tale in (3a). Unlike the Japanese marker *mo*, *njabi* does not appear to have any additional quantificational uses (Mitrović & Sauerland 2016). Conjunction can also be expressed by simple juxtaposition of the conjuncts, marked with a comma in writing (3b).

(1) Xunjana pydar to^{h} njabi varan^{h} xan.ta.n.
Tomorrow you lake other shore go.FUT.2s
'Tomorrow you will go to the other side of the lake'. (Almazova 2010)

(2) Njabimdej pjelja
Second half

(3) a. Vesako njabi xabcja^{h}
Old.man and sickness

b. Vesako, xabcja^{h}
Old.man, sickness

Juxtaposition is a strategy that can be used to conjoin arguments of any syntactic type: referential DPs (4), bare nouns (5), VPs (5), sentential arguments (both unembedded and embedded (6)) as well as adverbs (7) and adjectives (8). In contrast, the junctor *njabi* has a much more restricted distribution. Of the categories listed above, it applies only to referential DPs and bare nouns.

(4) Anja (njabi) Petja to.ŋaxa.
Anja (and) Petja came.DU

(5) Vanjako (njabi) koxska madarna.c' (*njabi) muno^{q}nac'.
Dogs (and) cats bark.PAST.PL (*and) make-sound. PAST.PL
'Dogs and cats barked and made sounds'.

(6) (Njebja jexera,) Anja to.s' (*njabi) Petja xaja.s'.
(Mother not-know) Anja come.PAST.SG (*and) Petja leave.PAST.SG
'Mother does not know that Anja came and Petja left'.

(7) Man' tjuku jala^{h} (*njabi) xunjana manzara.ŋgu.dm^{h}
I this day (*and) tomorrow work.FUT.1SG
'I will work today and tomorrow'.

(8) Numlaxa (*njabi) paderaxa sjanako.

Blue (*njabi) green toy

Contrasts with respect to QPs We further observe that the restriction on the use of *njabi* is not syntactic. *Njabi* is restricted in the types of DPs it can conjoin: it cannot conjoin quantifiers with each other or with referential terms. In such cases, only the juxtaposition strategy is available.

(9) Ɔob.kart^{h} nje ŋaceky (*njabi) ŋob.kart^{h} xasavy ŋaceky nji^{ɋ} to^{ɋ}
one.even women kid (*and) one.even man kid NEG.PL come.
'No girl and no boy came'.

(10) Mal toxodanna.^{ɋ} (*njabi) mal tokolxoda.^{ɋ} narka jalja.xana me.c'.
All student.PL (*and) all teacher. PL big day.to be. PAST.PL
'All students and all teachers were there at the celebration'.

(11) Xusuvej toxodanna (*njabi) xusuvej tokolxoda narka jalja.xana me.s'.
Every student (*and) every teacher big day.to be. PAST.SG
'Every student and every teacher was there at the celebration'.

(12) Tokolxoda (*njabi) mal toxodanna.^{ɋ} narka jalja.xana me.c'.
Teacher (*and) all student.PL big day.to be. PAST.PL
'The teacher and all students were there on at the celebration'.

Interestingly, *njabi* can conjoin two noun phrases inside the quantificational phrase (in other words if the second QP is omitted).

(13) Xusuvej toxodanna (njabi) tokolxoda narka jalja.xana me.s'.
Every student (and) teacher big day.to be. PAST.SG
'Every student and teacher were there at the celebration'.

The restriction does not extend to existentials, presumably because they can get a non-quantificational analysis.

(14) Xurkavava tokolxoda.^{ɋ} njabi xurkavava toxodanna.^{ɋ} me.c'.
Some teacher. PL and some student.PL be.PAST.PL
'Some teachers and some students were there'.

Contrasts in the interpretation The two conjunction strategies differ in the meanings they yield. In sentences like (16), juxtaposition produces an ambiguity: the sentence is acceptable both in a situation where each individual received 1000 rubles and in one where they received 1000 rubles cumulatively. The insertion of *njabi*, however, allows only the cumulative reading. The distributive reading with *njabi* becomes possible only if an additional operator 'each' (*toti^{ɋ}*) is inserted after *Petja*. Another difference between the two constructions is that only juxtaposition permits the insertion of modals before the second conjunct.

(15) Anja (njabi) Petja jonar selkojm^{h} nja^{ɋ}am.naxanz'.
Anja (and) Petja 1000 money receive. PAST.DU
'Anja and Petja received 1000 rubles'

(16) Anja (*njabi) xabvabta Petja to.ŋaxa.
Anja (*and) possibly Petja came.DU

The proposal We propose that *njabi* is the natural-language realization of the Link-style sum operator (⊕). Juxtaposition, by contrast, allows the full range of interpretations familiar from English: it can express both Boolean conjunction and Link-type summation. Following Partee & Rooth (1983), we assume that Boolean conjunction is required when conjoining a proper name with a quantifier, or two quantifiers with each other; this is why *njabi* is blocked in such environments. While it is theoretically possible to extend ⊕ to quantificational cases (Krifka 1990), natural languages do not appear to adopt this strategy.

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