

Disjunctive and conjunctive particles meet their negative concord relatives

The study of logical particles in recent literature has highlighted the fact that across many languages, the same morphemes occur in three different roles. (i) They form quantifier words with indeterminate pronouns, e.g. Japanese *dare-ka* ‘someone’, *dare-mo* ‘everyone, anyone’, (ii) they reiterate on all the members of disjunctions and conjunctions, e.g. *ringo ka mikan (ka)* ‘either apple or orange’, *ringo mo mikan mo* ‘both apple and orange’, and (iii) they occur as unary interrogative and additive particles, e.g. question markers and particles meaning ‘too, even’. It is well-known that the third member of the Boolean particle family, the negative particle has similar properties. To illustrate with English, (i) *no one*, (ii) *neither apples nor oranges*, and (iii) sentential negation markers, as in *I did not* and *Nor did I*. The list does not end here; for example, concessive/free choice particles appear in similar triads.

This paper will focus on the **negative concord (NC)** particles of Hungarian and situate them in the landscape of the logical particles of the language.

To provide some background on NC, Surányi (2006) showed that Hungarian is a hybrid NC language, and É. Kiss (n.d.) outlined its Jespersen-cycle style development. Quantifiers of the type *senki* ‘n-one’ are strict NC items; similarly to Russian *nikto* ‘n-one’ they require the presence of clause-mate negation. Quantifiers of the type *senki sem* ‘n-one nor’ on the other hand are non-strict NC items; similarly to Italian *nessuno* ‘n-one’ they do not co-occur with clause-mate negation when in preverbal position. Chierchia (2013) analyzes Italian negative concord as follows. NEG is a phonetically silent clause-level head that requires (a) a NC item, interpreted as an existential quantifier, in its specifier, with which it agrees in the $[[n-D]]$ feature, and (b) an abstract, “disembodied” negation \neg scoping above its projection.

(1) \neg [$nessuno_{[[n-D]]}$ **NEG** $_{[[n-D]]}$ ha telefonato] (simplified) ‘No one called’

Szabolcsi (2016) argues that the particle *sem* is an overt counterpart of Chierchia’s NEG, so that the basic strict and the non-strict NC structures of Hungarian are as follows. In (2), the NC item *senki* occurs in the specifier of *nem* ‘not’, and in (3), in the specifier of *sem* ‘nor=NEG’, in analogy to (1):

(2) [**senki** **nem:** \neg telefonált] ‘No one called’ **strict**
 (3) \neg [**senki** $_{[[n-D]]}$ **sem** $_{[[n-D]]}$ telefonált] (simplified) ‘No one called’ **non-strict**

Against this background, the present paper focuses on two distinct *sem sem* ‘neither nor’ constructions. They differ as to whether the particles precede or follow their hosts, and they have rather different properties. Both variants pattern with certain other particle constructions discussed in Szabolcsi (2015).

The particles that precede their hosts combine with the optional connective *pedig* ‘whereas’ in coordinations, and they form quantifier words.

- (4) a. *mind Kati mind (pedig) Mari* ‘both K and M’ -- *mindenki* ‘everyone’
 b. *vagy Kati vagy (pedig) Mari* ‘either K or M’ -- *valaki* ‘someone’
 c. *sem Kati sem (pedig) Mari* ‘neither K nor M’ -- *senki* ‘no one’

The coordinations and the quantifier words share the same general behavior. In the case of (4c), both are strict NC items, cf. (2).

- (5) **Sem Kati sem** (*pedig*) *Mari nem* telefonált. -- **Senki nem** telefonált.

We propose that these particles are quantifier-internal, and *sem Kati sem (pedig) Mari* is both syntactically and semantically equivalent to ‘no one in the domain {K, M}’.

The particles that follow their hosts differ from the above in a number of ways. In coordinations, the optional connective is *és* ‘and’, not *pedig*. Coordination is not required: the *host+ particle* unit can stand on its own. Particle *is* does not form a quantifier word. The final particle *sem* does not, either, but it attaches to NC items, as we have seen:

- (6) a. *Kati is (és) Mari is* ‘both K and M’ -- **iski*
 Kati is ‘K too’
 b. *Kati sem (és) Mari sem* ‘neither K nor M’ -- *senki sem* ‘no one nor’
 Kati sem ‘K either’

The coordination and the quantifier in (6b) share the same general behavior; in particular, both are non-strict NC items, cf. (3); when preverbal, they do not tolerate **nem**:

- (7) *Kati sem telefonált és Mari sem telefonált.* -- **Senki sem** telefonált.

We propose that both *is* and the *sem* that patterns with *is* are clause-level heads. The coordination version involves ellipsis, indicated with strike-out above.

We see that the negation-related particles fit well into the system of conjunction-related and disjunction-related particles. They also offer an opportunity to ask whether the three Boolean operations are on a par here. Given the view in Chierchia (2013) and other current literature that NC items are existential/disjunctive operators within the scope of negation, the question arises whether the particle *sem* is built from a conjunctive or a disjunctive semantic basis, diachronically and synchronically. The paper will also attempt to address these larger questions.

References

- Chierchia (2013), *Logic in Grammar*. OUP.
 É. Kiss (n.d.), A *sem* szinkrón és diakrón szerepéről. Ms.
 Surányi (2006), Quantification and focus in negative concord. *Lingua* 116: 272-313.
 Szabolcsi (2015), What do quantifier particles do? *Linguistics & Philosophy* 38: 159-204.
 Szabolcsi (2016), Strict and non-strict negative concord in Hungarian: A unified analysis. Ms.