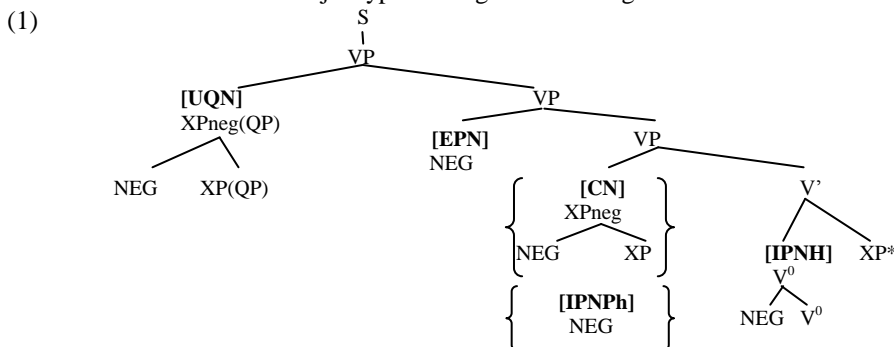


1. Introduction

Laczkó (2014), capitalizing on É. Kiss’s (1994) empirical generalizations and structural insights in her GB framework, outlines the first LFG-XLE analysis of the basic negation facts in Hungarian. (1) is an overview of Laczkó’s (2014) structural treatment of the major types of negation in Hungarian.



- NEG stands for the negative particle *nem* ‘not’ (analyzed as a non-projecting word exhibiting both X⁰ and XP behaviour, cf. Toivonen 2001).
- [CN] = ordinary constituent negation – a negated constituent must, as a rule, occupy the Spec,VP focus position
- [UQN] = universal quantifier negation (special constituent negation, available to universal quantifiers when the Spec,VP position is filled by a focussed constituent)
- [EPN] = (VP)external predicate negation (when the Spec,VP position is occupied by a focussed constituent)
- [IPNPh] = (VP)internal predicate negation, phrasal use of NEG (the negative particle is in complementary distribution with (possibly negated) focussed constituents and verbal modifiers in Spec,VP; the curly brackets signal the complementarity of [CN] and [IPNPh]) – this is different from É. Kiss’s (1994) account, which posits that even when there is no focussed constituent in the VP, NEG is head-adjoined to V⁰
- [IPNH] = (VP)internal predicate negation, head-adjunction use of NEG (when the Spec,VP position is occupied by a focussed constituent)

Laczkó (2014), adopting one of the two major ways of treating negative markers in the LFG-XLE (ParGram) tradition, assumes that the negative particle with its **neg** PRED feature is a special negative adjunct modifier of the constituent it structurally combines with (whether in predicate negation or in constituent negation configurations) – with the following lexical form:

(2) *nem* NEG * @(PRED %stem) (^ ADJUNCT-TYPE)= neg.

In the talk we will modify and augment the LFG-XLE analysis of Hungarian negation phenomena summarized above in two respects by developing (i) an analysis of negative concord: the licensing of n-words like *senki* ‘anybody/nobody’ (ii) a treatment of the two additional negative particles *sem* and *se* (both meaning ‘also.not/either’).

2. N-words

We gloss N-words in the following way: *senki*: #nobody. These words must be licensed by the negative particle – typically in predicate negation configurations (in the talk we will also discuss some special additional cases; and also see section 3 below for a major special type). Consider the following examples illustrating this basic fact.

(3) **Péter fel hívott senki-t.* (4) *Péter nem hívott fel senki-t.*
 Peter.NOM up called #nobody-ACC Peter.NOM not called up #nobody-ACC
 BOTH: ‘PETER DIDN’T CALL UP ANYBODY. = PETER CALLED UP NOBODY.’

In (3) there is no predicate negation; therefore, the use of *senki-t* ‘#nobody-ACC’ is ungrammatical. In (4) there is predicate negation (with *Péter* being either a topic or a focus) and the sentence is grammatical.

As was pointed out in section 1, Laczkó (2014) treats both major types of negation, constituent negation and predicate negation, in a uniform manner in the following sense. The negative particle has the same lexical specifications, and it negates a constituent or the V(P) as a negative adjunct. As a plausible formal LFG-XLE treatment of the relevant Hungarian facts (which has also been implementationally tested), we propose a modified analysis along the following lines.

- In the individual grammars in the ParGram collaboration there are two major ways of treating predicate negation (often but not at all systematically) motivated by the particle vs. affix status of the negative marker in the given language: (i) the marker is a negative adjunct with its own PRED feature (see the English PG grammar) (ii) the marker only introduces a negative feature: NEG = + (see the Turkish PG grammar), for details, see Rákosi (2013).
- Given that predicate negation in Hungarian is also responsible for introducing a negative scope that licenses n-words, it is reasonable to make a formal distinction in the encoding of the two major types of negation: the ADJUNCT-NEG device can be kept for capturing constituent negation, and predicate negation is naturally (and feasibly) encodable by dint of the NEG+ feature. In this approach then the licensing of n-words can be made sensitive to the presence of the NEG+ feature in the f-structure of the clause.

- The lexical form of the negative particle is augmented with the option of contributing the NEG+ feature (appropriately constrained to instances of clausal negation). Compare (2) with (5).

(5) *nem* NEG * { @(PRED %stem) (^ ADJUNCT-TYPE)= neg ~(^ STMT-TYPE)
| (^ NEG)=+ (^ STMT-TYPE) }.

The first disjunct is the previous ADJUNCT-NEG encoding and the second is the NEG+ specification. The former is now restricted to constituent negation by the negative existential constraint ~(^ STMT-TYPE), which requires that the constituent *nem* ‘not’ is combined with should not have a statement-type feature, i.e. it should not be clausal in nature. The latter, by contrast, is restricted to this statement-type feature, i.e. to the clausal nature of the relevant constituent. In the lexical forms of n-words a constraining equation requires the presence of the NEG+ feature in the f-structure of the clause.

3. *Se(m)* ‘also.not/either’

While the ordinary negative particle precedes the constituent that it combines with (by being left-adjoined to it: **nem**[^]**XP**), see (1) above, these special negative markers are right-adjoined to their respective constituents: **XP**[^]**se(m)**. They can be combined with n-words and ordinary constituents in a variety of ways. Preverbally *se(m)* can combine with either n-words or ordinary constituents in either a VP-adjoined quantifier position or in Spec,VP. In addition, n-words (but not ordinary constituents) can also be combined with *nem* (also right-adjoined to them). Mnemonically, we refer to such constituents as **XPsnem**. Postverbally only *se(m)* can be used with either n-words or ordinary constituents in n-word-type negation, and it is optional with the former and obligatory with the latter. Mnemonically, we refer to such constituents (containing *se(m)*) as **XPsem**. It is a very special property of XPsnem constituents in Spec,VP that they also encode predicate negation, in addition to constituent negation. For the sake of efficiency (wrt both parsing and generation) currently we have implemented a version of the grammar with special phrase structure nodes (XPneg, XPsnem and XPsem), which is a widely used ParGram strategy. Note, however, that a more LFG-theoretically-biased analysis with generalized adjunction patterns (XP[^]XP) can also be employed – obviously, with appropriate constraints built into the c-structure annotations and the lexical representations of the relevant items. These formal-technical details will also be spelt out in the talk.

Below we give the phrase structure rules (considerably simplified for expository purposes) of our implemented grammar confined to the Spec,VP position. In the current form of this sample implementation an n-word is specified (following the specification of the *any* series (e.g. *anybody*) in the English ParGram grammar) as PRON-TYPE= quant. This will be modified and finalized in the last part of the talk, see section 4.

(6) VP --> { (XP: (^ FOCUS) = !
| PRT
| NEG
| XPneg: @XP-GF (^ FOCUS)=!
| XPsnem: @XP-GF (^ FOCUS)=!}
| Vbar | Vbarneg }.

(7) XPneg --> NEG: @ADJUNCT;
XP.

(8) XPsnem --> { XP: @XP-GF (! PRON-TYPE)=c quant
{ SEM
| NEG}
| XP: @XP-GF (! PRON-TYPE)~= quant
SEM }.

The (simplified) disjunction in (6) encodes that the Spec,VP position can be occupied by a focussed constituent, the particle of a particle-verb construction (PRT), the negative particle *nem* ‘not’ (NEG), an ordinary negated constituent (XPneg) and an XPsnem constituent. (7) is the constituent negation rule. (8) encodes that n-words can be combined with either *nem* or *se(m)*, while ordinary constituents with *se(m)*. The lexical form of *sem* and *se* is as follows.

(9) *se(m)* SEM * { @(PRED %stem) (^ ADJUNCT-TYPE)= neg ~(^ STMT-TYPE)
| @(PRED %stem) (^ ADJUNCT-TYPE)= neg (NEG ^)=+ (^ STMT-TYPE) }.

The first disjunct encodes the simple constituent negation function of *se(m)*, while the second captures its additional predicate negation potential (just like in the case of *nem*, the two negation types are distinguished by the presence or absence of the STM_TYPE feature).

4. General issues

In the third third of the talk, we will discuss what the Hungarian facts and our analysis can contribute to a more uniform treatment of various aspects of negation (within and across languages) in XLE’s featural space. We will propose the use of the following devices: (i) **constituent negation**: ADJUNCT-NEG (ii) **predicate negation**: NEG+ (iii) **n-words**: licensed by NEG+ and specified as (^ POL = negative) (iv) **double negation** (of the *I didn’t not go* type): the combination of ADJUNCT-NEG and NEG+.

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