On an LFG-XLE treatment of negation in Hungarian

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1.   Introduction

2. Laczkó (2014), LFG'14 Proceedings – outlines of the LFG-XLE analysis of negation in Hungarian
3. new developments/implementation – primarily the treatment of n-word phenomena
4. summary of the ParGram negation issue (based on the wiki page, thanks to Gyuri Rákosi)
5. some remarks and tentative suggestions (based on Hungarian facts)

2.1. Laczkó (2014)

(1)
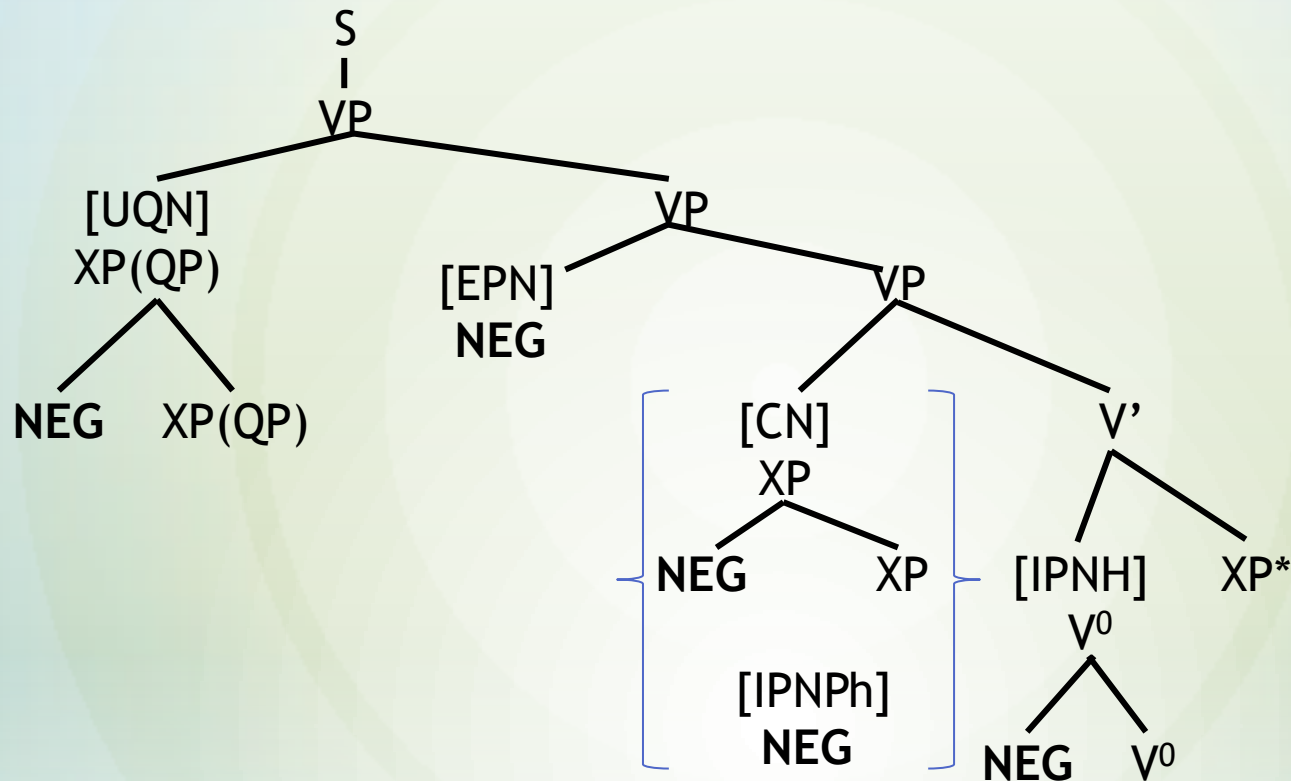
1. [CN] = ordinary constituent negation
2. [UQN] = universal quantifier negation (special constituent negation)
3. [EPN] = (VP)external predicate negation
4. [IPNPh] = (VP)internal predicate negation, phrasal use of NEG
5. [IPNH] = (VP)internal predicate negation, head-adjunction use of NEG
•   the curly brackets signal the complementarity of [CN] and [IPNPh]

2.2. Laczkó (2014)

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

- NEG: a non-projecting category with X^0 and XP distribution
- the latter could also be implemented as NEGP – however, no evidence for the phrasal nature of *nem* 'not'
- the EngGram-et-al.-way of treating the negative particle

[1]   **ordinary constituent negation**

Péter   NEM   A   BARÁTJÁ-T   hívta   fel.
Peter.NOM   not   the   friend.his-ACC   called   up
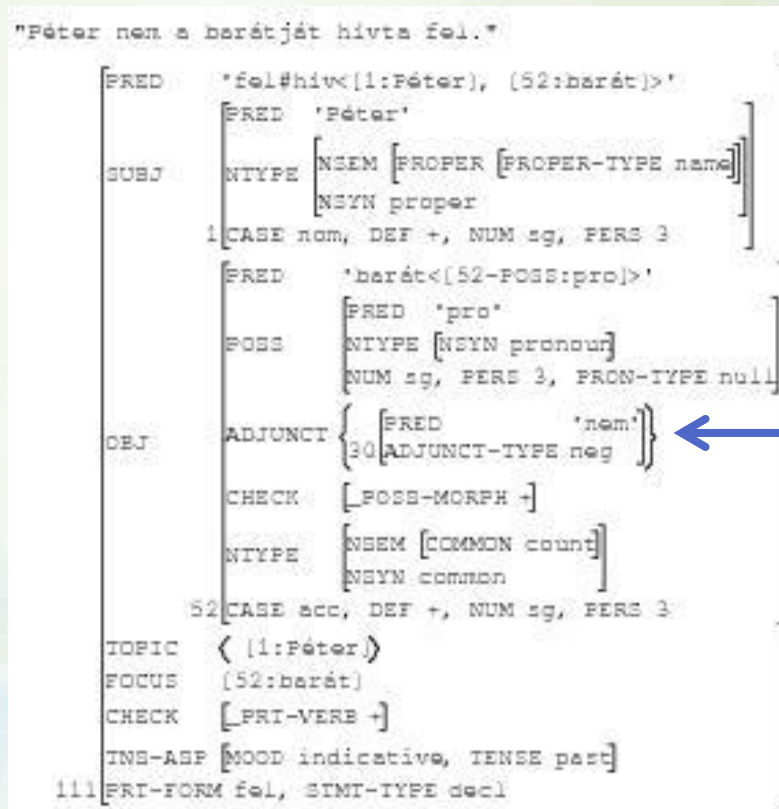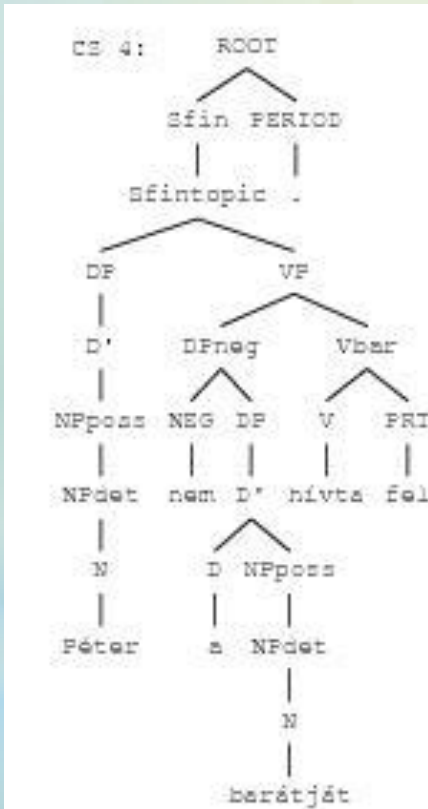'It wasn't his friend that Peter called up.'

(23)   XPneg: (^ GF)=! (^ FOCUS)=!

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

2.3. Laczkó (2014)

[1] **ordinary constituent negation** (always in Spec,VP = FOC)

Péter	NEM	A	BARÁTJÁ-T	hívta	fel.
Peter.NOM	not	the	friend.his-ACC	called	up

'It wasn't his friend that Peter called up.'

- UQs must also follow this constituent negation pattern if there is no (other) focussed constitutent in the sentence

5

2.4. Laczkó (2014)

[2]   **UQ negation with focus** (VP-adjoined Q-position)

Nem   mindenki-t   PÉTER   hívott   fel.

not   everybody-ACC   Peter.NOM   called   up

'It is not true for everybody that it was Peter that called them up.'

(25)   VPneg   -->   XPneg: (^ GF)=!
                                   (^ FOCUS)
                                   (! QUANT-TYPE) =c universal;
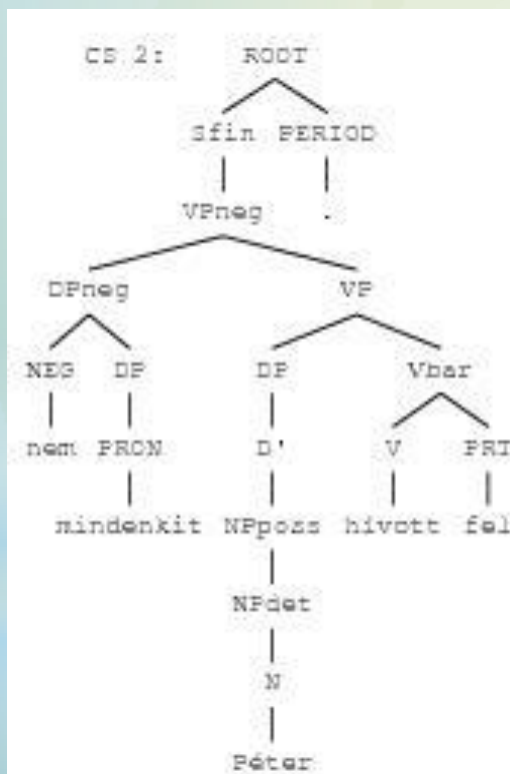   VP.

(currently: VPquantneg)

2.5. Laczkó (2014)

[2]   **UQ negation with focus**

Nem   mindenki-t   PÉTER   hívott   fel.
not   everybody-ACC   Peter.NOM   called   up
'It is not true for everybody that it was Peter that called them up.'

2.6. Laczkó (2014)

[3]   **predicate negation, with focus, NEG precedes the focus**
                                                    (VP-adjoined)

Péter   nem   A   BARÁTJÁ-T   hívta   fel.
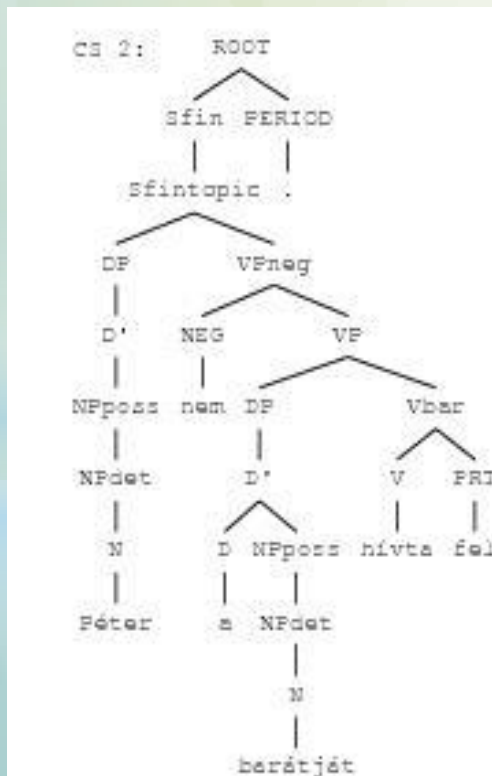Peter.NOM   not   the   friend.his-ACC   called   up
'It is not true that it was his friend that Peter called up.'

(26)   VPneg -->   NEG: @ADJUNCT (^ FOCUS);
                         VP.

2.7. Laczkó (2014)

[3] **predicate negation, with focus, NEG precedes the focus**
Péter   nem   A   BARÁTJÁ-T   hívta   fel.
Peter.NOM   not   the   friend.his-ACC   called   up
'It is not true that it was his friend that Peter called up.'

CS 2:   ROOT

Sfin PERIOD

Sfintopic .

DP   VPneg

D' NEG   VP

NPposs nem DP   Vbar

NPdet   D'   V   PRT

N   D NPposs hívta fel

Péter   a NPdet

N

barátját

"Péter nem a barátját hívta fel."

PRED   'fel#hív<[1:Péter], [52:barát]>'

SUBJ   PRED   'Péter'
        NTYPE NSEM [PROPER [PROPER-TYPE name]]
               NSYN proper
        1 CASE nom, DEF +, NUM sg, PERS 3

OBJ   PRED   'barát<[52-POSS:pro]>'
        POSS   PRED   'pro'
               NTYPE [NSYN pronoun]
               NUM sg, PERS 3, PRON-TYPE null
        CHECK [POSS-MORPH +]
        NTYPE NSEM [COMMON count]
               NSYN common
        52 CASE acc, DEF +, NUM sg, PERS 3

TOPIC   ⟨ [1:Péter] ⟩

ADJUNCT { PRED   'nem' }
        { 30 ADJUNCT-TYPE neg }

FOCUS   [52:barát]

CHECK   [PRT-VERB +]

INS-ASP [MOOD indicative, TENSE past]

111 PRT-FORM fel, STMT-TYPE decl

9

2.8. Laczkó (2014)

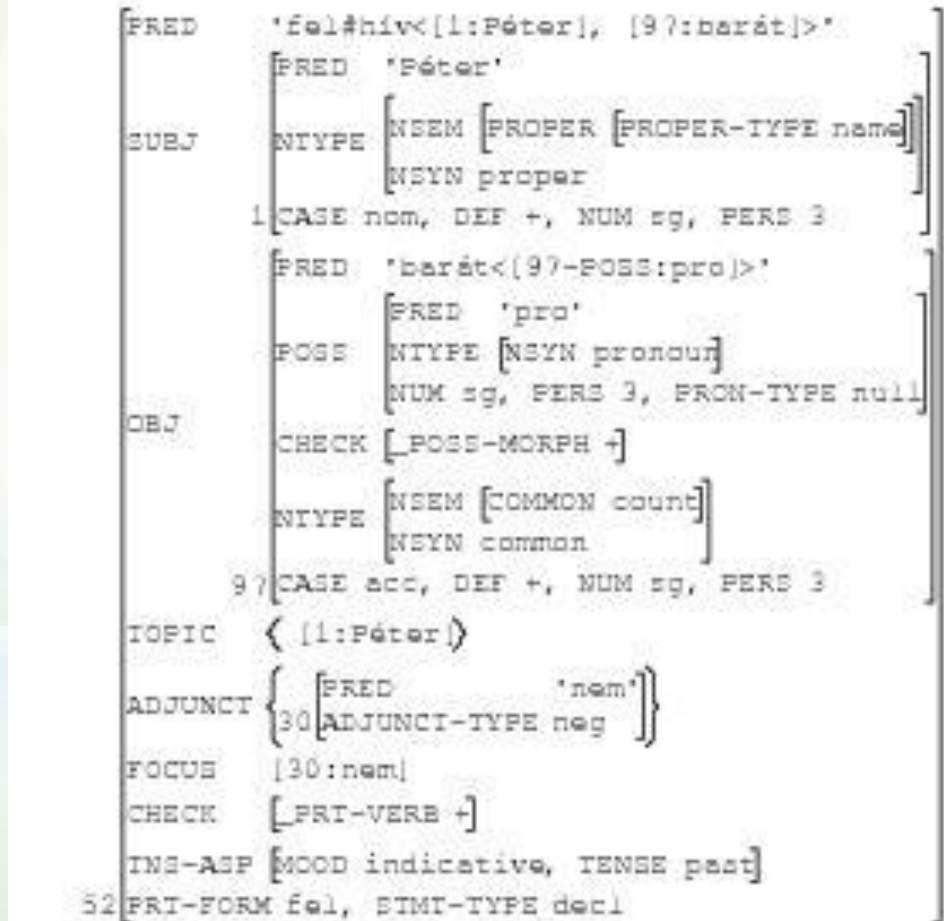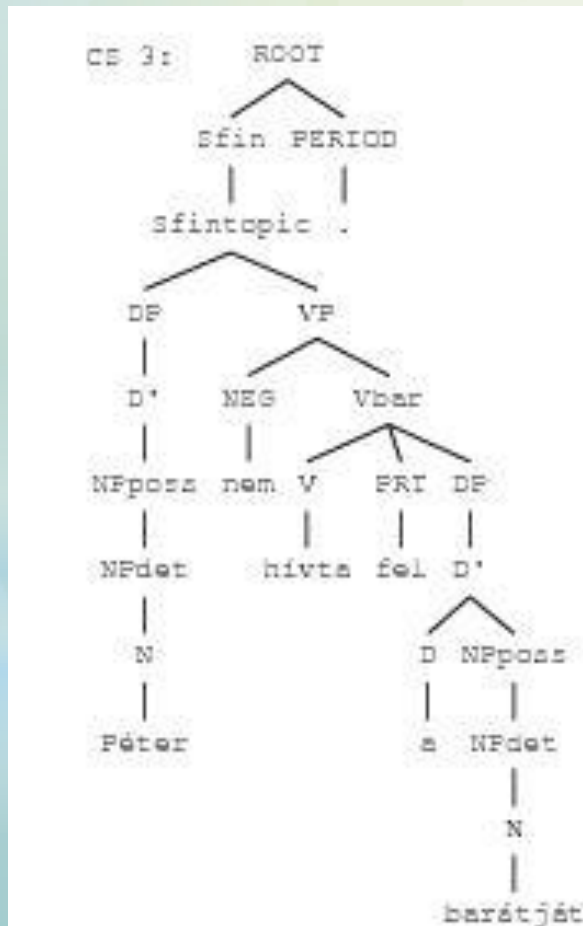[4]   **predicate negation, without focus, NEG precedes the verb**

(NEG in focus)

Péter   nem   hívta   fel   a   barátjá-t.
Peter.NOM   not   called   up   the   friend.his-ACC
'Peter didn't call up his friend.'

(28)   { PRT
         | XP (^ GF)=! (^ FOCUS)=!
         | XPneg: (^ GF)=! (^ FOCUS)=!
         | NEG: @ADJUNCT (^ FOCUS)=!}

motivation
- word order: the particle has to follow the verb – as in focussed sentences
- very often the construction exhibits the intonation pattern characteristic of focussed sentences

2.9. Laczkó (2014)

[4]   **predicate negation, without focus, NEG precedes the verb**

Péter	nem	hívta	fel	a	barátjá-t.
Peter.NOM	not	called	up	the	friend.his-ACC

'Peter didn't call up his friend.'

2.10. Laczkó (2014)

[5]   **predicate negation, with focus, NEG precedes the verb**
                                                              (NEG is head-adjoined)
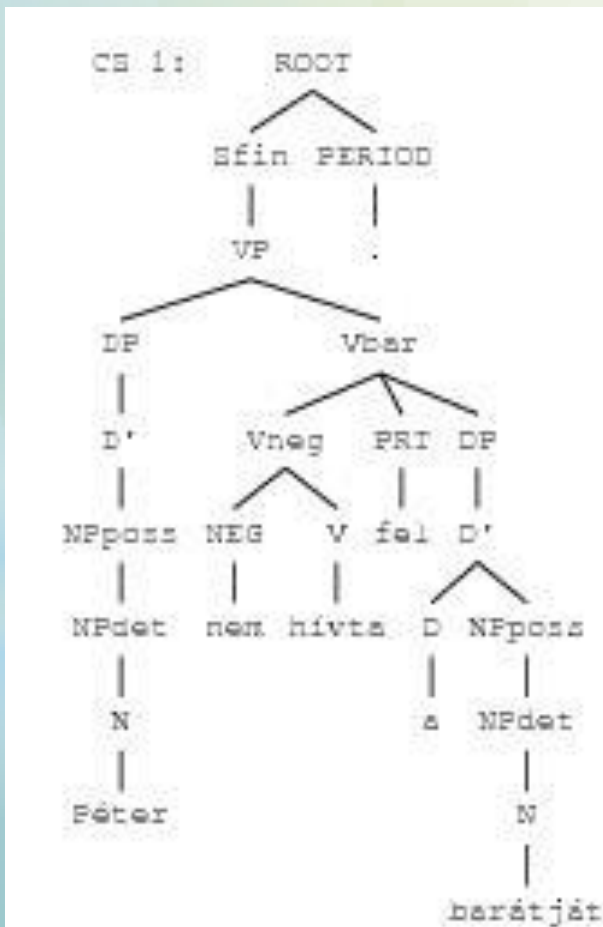
PÉTER   nem   hívta   fel   a   barátjá-t.

Peter.NOM   not   called   up   the   friend.his-ACC
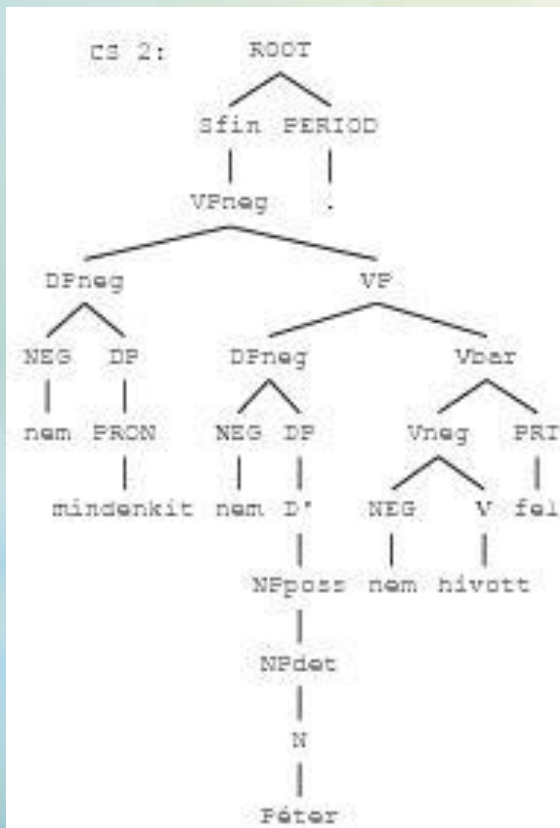
'It was Peter who didn't call up his friend.'

(27)   Vneg -->   NEG: @ADJUNCT
                                (^ FOCUS);
                          V.

2.11. Laczkó (2014)

[5]   **predicate negation, with focus, NEG precedes the verb**

PÉTER   nem   hívta   fel   a   barátjá-t.
Peter.NOM   not   called   up   the   friend.his-ACC
'It was Peter who didn't call up his friend.'

2.12. Laczkó (2014)

(1) Nem mindenki-t   nem Péter   nem   hívott   fel.
     not   everybody-acc   not   Peter   not   called   up
     'It doesn't hold for everybody that it was not Peter who did not call them up.'

3.1. New developments

new development: the treatment of **n-words** in Hungarian
(& sample implementation)

Negative concord: English vs. Hungarian

senki:
- an n-word, glossed as #nobody
- it has to be in the scope of clausal negation

(1) a.   *John didn't see anybody*.
          János **nem** látott ***senkit***. =
          John   **not**   saw #nobody

     b.   *John saw nobody*.
          =János **nem** látott ***senkit***.
           John **not** saw #nobody

     c.   *John didn't see somebody*.
          János **nem** látott **valakit**.
          John **not** saw   somebody

     d.   *Nobody saw anybody*.
          Senki   **nem** látott ***senkit***.
           #nobody **not**   saw #nobody

3.2. New developments

nem 'not' vs. **sem** & **se** 'also.not'

preverbally: **XPsnem**

senki   **nem/sem/se**   +   *János* ***nem/sem/se*** (⇔ *nem János*: **XPneg**)
#nobody   John
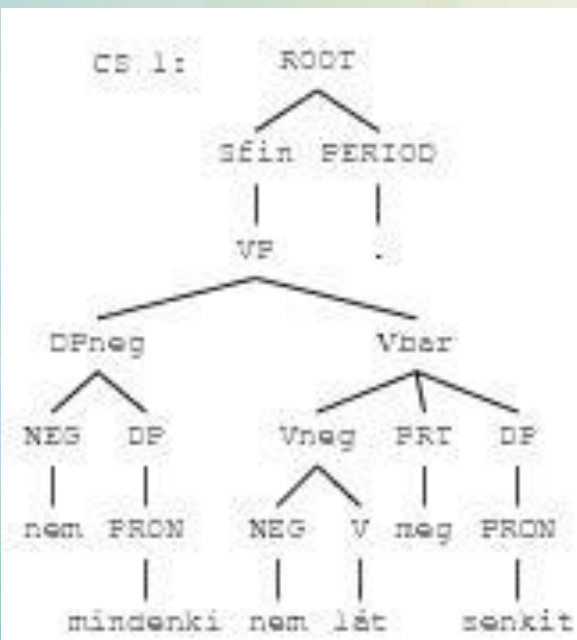
- in focus & sent negation

- in quantneg & const negation

postverbally: **XPse**

senki   ***nem (sem/se)***   +   *János* ***nem/sem/se***
#nobody   John

3.3. New developments

(1) Nem mindenki   nem   lát   meg   senki-t.
     not   everybody.nom not   sees pv   #nobody
     'Not everybody does not catch sight of anybody."

- UQ-negation in focus, clausal negation, n-word
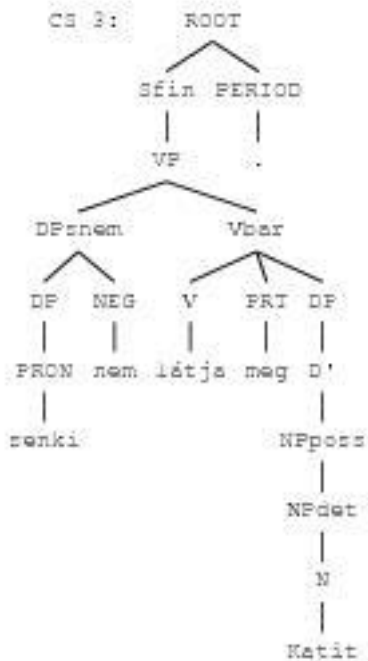- ADJ-NEG & NEG+ vs. NEG+ only for n-word scope?

3.4. New developments

(1) Senki   nem   látja   meg Kati-t.
    #nobody.nom   not   sees   pv   Kate-acc
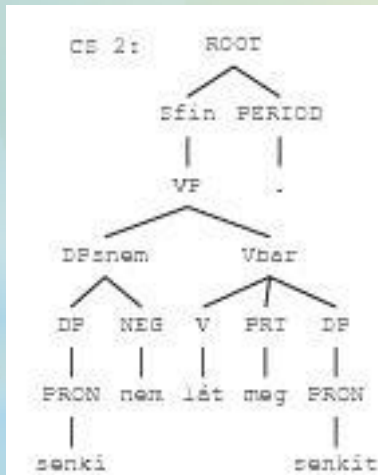   'Nobody catches sight of Kate.'

3.5. New developments

(1) Senki   nem lát   meg   senki-t.
    #nobody.nom not   sees   pv   nobody-acc
    'Nobody catches sight of anybody.'

3.6. New developments

(1) János   sem   lát   meg   senki-t.
    John.nom also.not sees   pv   #nobody-acc
    'John does not catch sight of anybody, either.'

3.7. New developments

Senki   sem   látja meg János-t   se   senki-vel   sem   senki-nél.
#nobody.nom also.not sees pv   John-acc also not #nobody-with also.not   #nobody-at
'Nobody catches sight of not even John not even with anybody not even at anybody's place.'

3.8. New developments

Senki   sem   látja meg János-t   se   senki-vel   sem   senki-nél.
#nobody.nom also.not sees pv   John-acc also not #nobody-with also.not #nobody-at
'Nobody catches sight of not even John not even with anybody not even at anybody's place.'

```
"Senki sem látja meg Jánost se senkivel sem senkinél."

[PRED      'meg#lát<[2:pro], [62:János]>'
          [PRED      'pro'
 SUBJ     [ADJUNCT  [PRED 'sem']
         2[ADJUNCT-TYPE neg, CASE nom, HUMAN +, NUM sg, PERS 3, PRON-TYPE quant]

          [PRED      'János'
          [ADJUNCT  { [PRED          'se']
          {         89[ADJUNCT-TYPE neg]}
 OBJ
          [NTYPE    [NSEM [PROPER [PROPER-TYPE name]]
          [         [NSYN proper]
        62[CASE acc, DEF +, NUM sg, PERS 3]

          { [PRED          'sem']
          -1[ADJUNCT-TYPE neg]

          { [PRED      'pro'
          { [ADJUNCT  { [PRED          'sem']
 ADJUNCT  {          113[ADJUNCT-TYPE neg]}
          { 94[CASE inst, HUMAN +, NUM sg, PERS 3, PRON-TYPE quant]

          { [PRED 'pro'
          118[CASE adessive, HUMAN +, NUM sg, PERS 3, PRON-TYPE quant]

 CHECK    [PRT-VERB +]
 GLOSS    [TRANS see]
 TNS-ASP  [MOOD indicative, TENSE pres]
26[NEG +, PRT-FORM meg, STMT-TYPE decl]
```
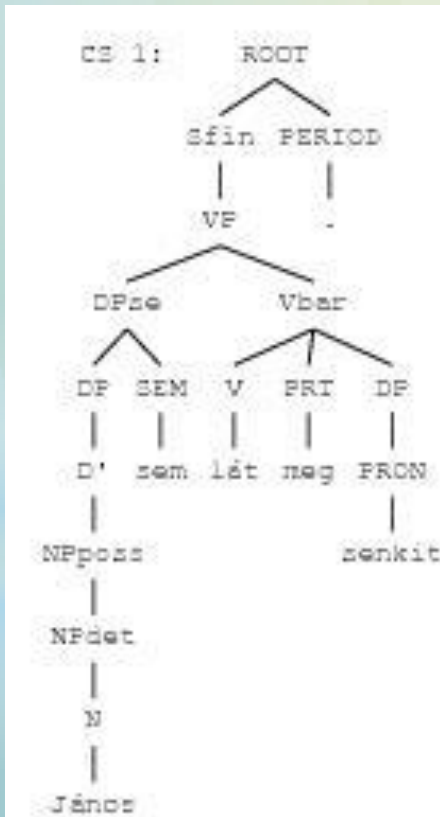
3.9. New developments

[John: either FOC or TOP]

(1) János   nincs a   szobá-ban.
     John.nom   not.is   the   room-in
     'John isn't in the room.'

nincs = not.be.pres.3sg → an additional argument against ADJUNCT-NEG, because it would have to be assumed to contribute two PRED features: PRED=be & ADJUNCT-PRED=not – likewise for **sincs**: PRED=be & ADJUNCT-PRED=also.not

3.10. New developments

(1) Senki   nincs   a   szobá-ban.
    #nobody.nom not.is   the   room-in
    'Nobody is in the room.'

"Senki nincs a szobában."

```
PRED      'van<[2:pro], [47:szoba]>'
SUBJ    2 [PRED 'pro'
           [CASE nom, HUMAN +, NUM sg, PERS 3, PRON-TYPE quant]
OBL       [PRED  'szoba'
           NTYPE [NSEM [COMMON count]
                  NSYN common]
        47 [CASE inessive, DEF +, NUM sg, PERS 3]
FOCUS     [2:pro]
GLOSS     [TRANS be]
TNS-ASP [MOOD indicative, TENSE pres]
22 NEG +, STMT-TYPE decl]
```


- the copula is negated in this suppletive fashion (in present tense, 3rd person, indicative mood) in its **locative** (& existential) use → an argument for OBL, see Laczkó (2012)

3.11. New developments

(1) A   szobá-ban   sincs   senki.
    the room-in   also.not.is #nobody.nom
    'Nobody is in the room either.'


```
"A szobában sincs senki."

   ┌PRED     'van<[?1:pro], [2:szoba]>'
   │         ┌PRED 'pro'
   │SUBJ    ?1│CASE nom, HUMAN +, NUM sg, PERS 3, PRON-TYPE quant┐
   │         ┌PRED  'szoba'
   │         │      ┌NSEM [COMMON count]┐
   │OBL      │NTYPE │NSYN common        │
   │         2│CASE inessive, DEF +, NUM sg, PERS 3│
   │FOCUS    [2:szoba]
   │GLOSS    [TRANS be]
   │TNS-ASP  [MOOD indicative, TENSE pres]
  46│NEG +, STMT-TYPE decl
```
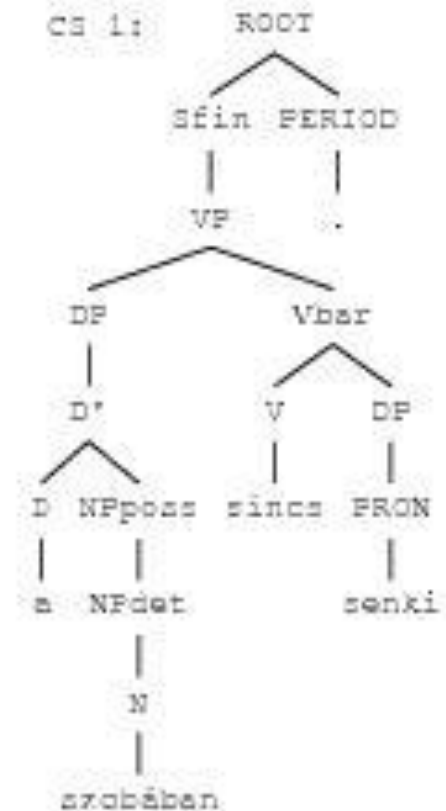
4.1. ParGram negation issues (wiki)

There has been a discussion over the years about how to treat negation. The English and German grammars register negation as an ADJUNCT (ADJUNCT-TYPE neg) in the f-structure. However, this analysis did not seem to make sense for affixal negation on the verb. Instead, the presence of negation is just registered via a NEG + feature. The ParGram grammars are currently split how they analyze negation between these two options.

At the **ParGram meeting in Oxford in 2006**, a decision was taken that all grammar should experiment with a possibly complex NEG feature. <u>The problem here is that you get examples like "I didn't not go."</u> in English and it is not clear how to treat that with just a NEG feature.

TL: see my remark in point 8 below.

Also there is maybe <u>an issue with respect to NPI items</u> that one might want to think about. But perhaps this is best left for semantics.

TL: In Hungarian, we have n-words, which are strictly licensed by specific negative configurations (a task to handle for the generator), see my remark in point 4 below.

4.2. ParGram negation issues (wiki)

Negation Committee (ParGram in Oxford, 2006)
(Miriam Butt, Özlem Çetinoğlu, Tracy H. King, Paul Meurer, Ingo Mittendorf)

- Languages using ADJUNCT(-NEG) to re-examine use of NEG (in conjunction with the ADJUNCT).
- Use of NEG is encouraged.
- English (and German) to test if this is a problem.
- Languages with non-independent (affixal etc.) negation allowed to use NEG without providing a (dummy) negative ADJUNCT.
- Turkish, Georgian, Welsh to explore this approach, possibly with NEG having a complex value.

4.3. ParGram negation issues (wiki)

summary of Gyuri Rakosi's presentation in Debrecen

- The ADJUNCT/NEG+ analysis does not always correlate with the expected language type in the XLE grammars: Polish has a negative adjunct but the XLE grammar uses the NEG+ feature; Indonesian employs the ADJUNCT-analysis even if it has several distinct negative markers.
- Several languages have competing negation strategies (Wolof, Indonesian, French). Thus some level of consistency is an issue crosslinguistically as well as within some of the grammars.
- Problems for the NEG+ analysis: "I cannot not go" (see also above), scope-interactions.
- Problems for the ADJUNCT analysis: relation between "John didn't see anybody" and "John saw nobody"; or between "John didn't have any time" and "John had no time" ("no" is a quantifier in the English grammar with the feature POL negative).
- General issue: separate clearly f-structure issues and semantic issues in the analysis.
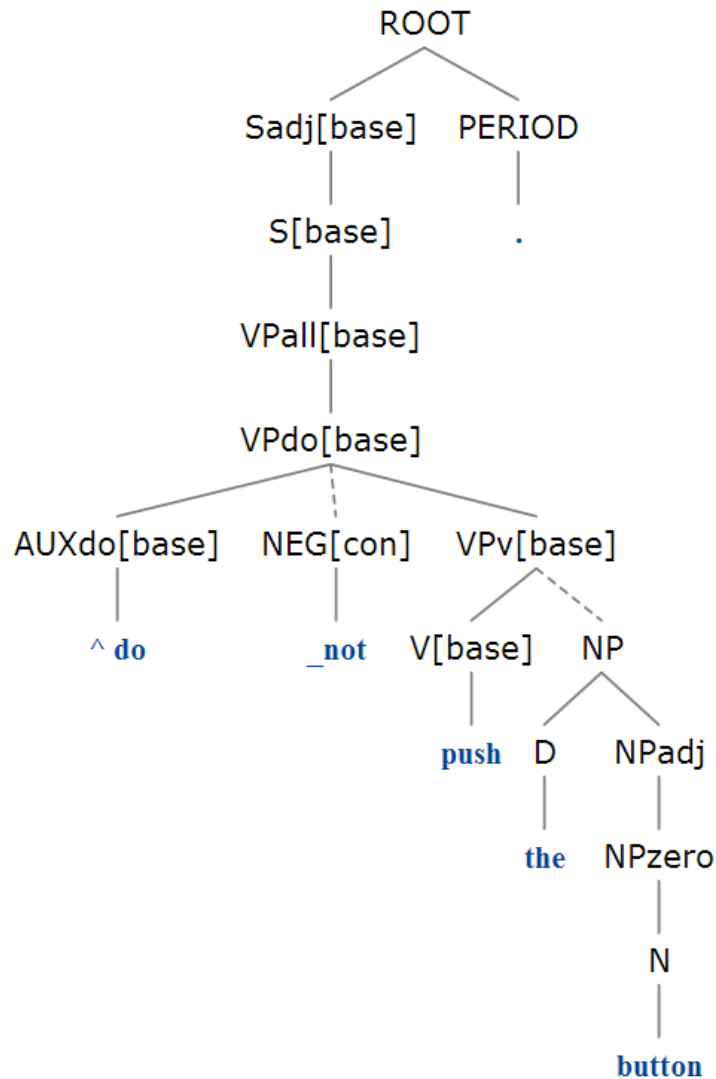
4.4. ParGram negation issues (wiki)

Occasioned by the ACL paper:
The English not *functions as an adverbial adjunct that modifies the main verb … and* **information would be lost if this were not represented at f-structure (**my emphasis, TL)*. However, the same cannot be said of the negative affix in Turkish — the morphological affix is not an adverbial adjunct. We have therefore currently analyzed morphological negation as adding a feature to the f-structure which marks the clause as negative, … .*
Within ParGram we have not abstracted away from this surface difference. (pre-print)

TL: *I did open the door.* – *I opened the door.* – the same function: *did & -ed,* cf. *more & -er*
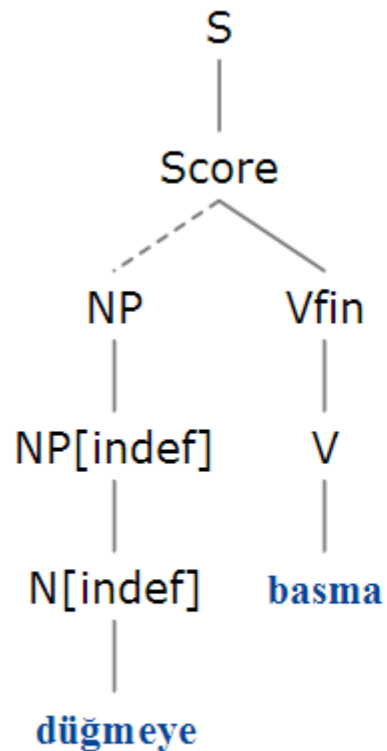
4.5. ParGram negation issues (wiki)

English: *Don't push the button*

Turkish: *Don't push the button*

4.7. ParGram negation issues (wiki)

Polish: *Don't push the button*
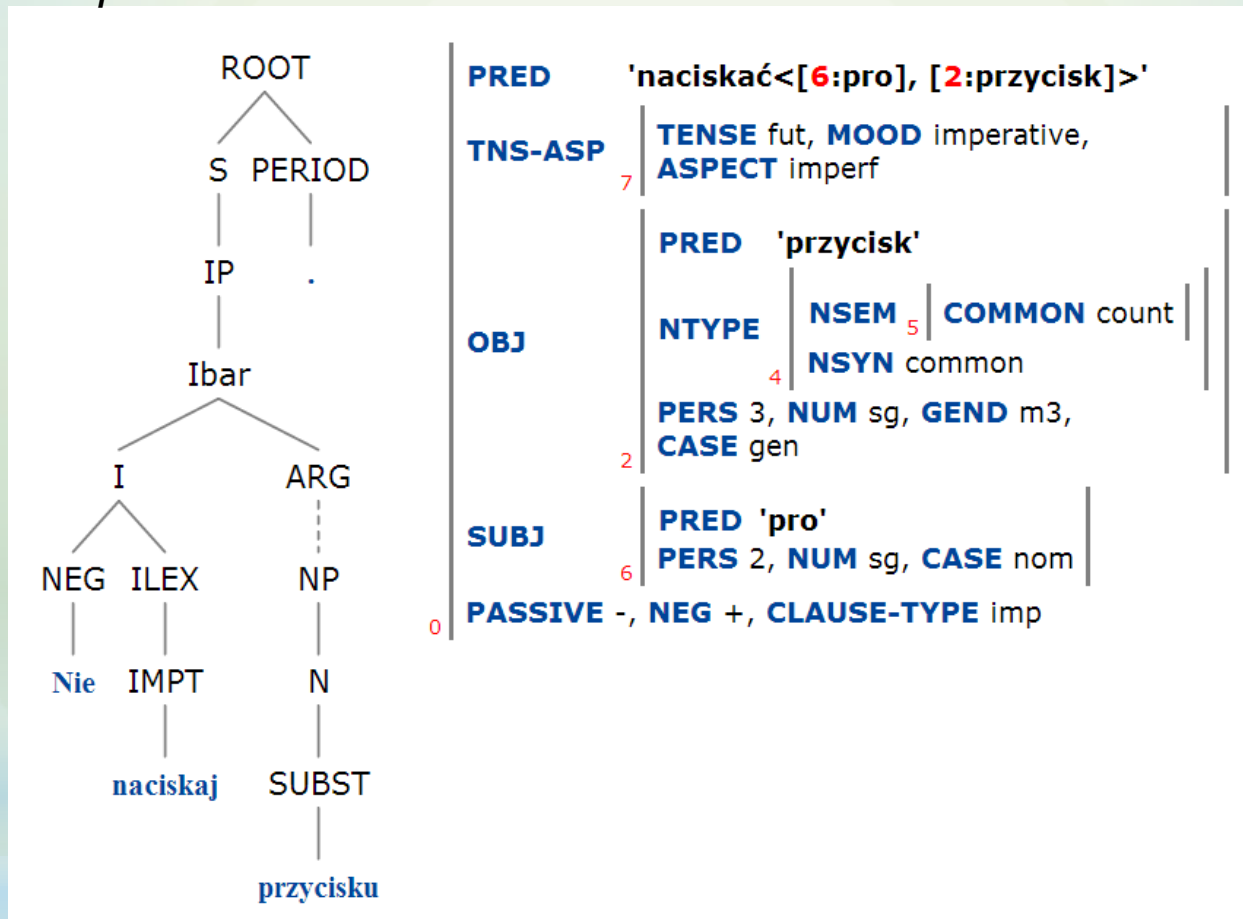
Polish LFG also uses Turkish-style negation (it treats negation as a marker, as a co-head of the relevant verb) … If there are some good reasons, we would adopt the adjunct analysis.
(Agnieszka)

4.8. ParGram negation issues (wiki)

Wolof

Wolof has both negation forms: affixal and negation expressed via a lexical item. *The two forms, however, have a different distribution. While clauses with focus can contain both forms, affixal negation can only be found in neutral (i.e. non-focused) clauses. This means that the adjunct analysis could still be viable for those focused constructions with negation expressed via a lexical item, however, the Turkish-style seems more motivated for affixal negation. Unlike Agnieszka's remark for Polish, at this point, I see no good reasons for adopting the adjunct analysis for morphologically marked negation in Wolof.*

Currently, I adopt the Turkish-style for both negation forms, partly for consistency reasons: in order to have a uniform analysis for both forms*, … .* (Bamba)

4.9. ParGram negation issues (wiki)

Wolof: *Don't sleep* (?)
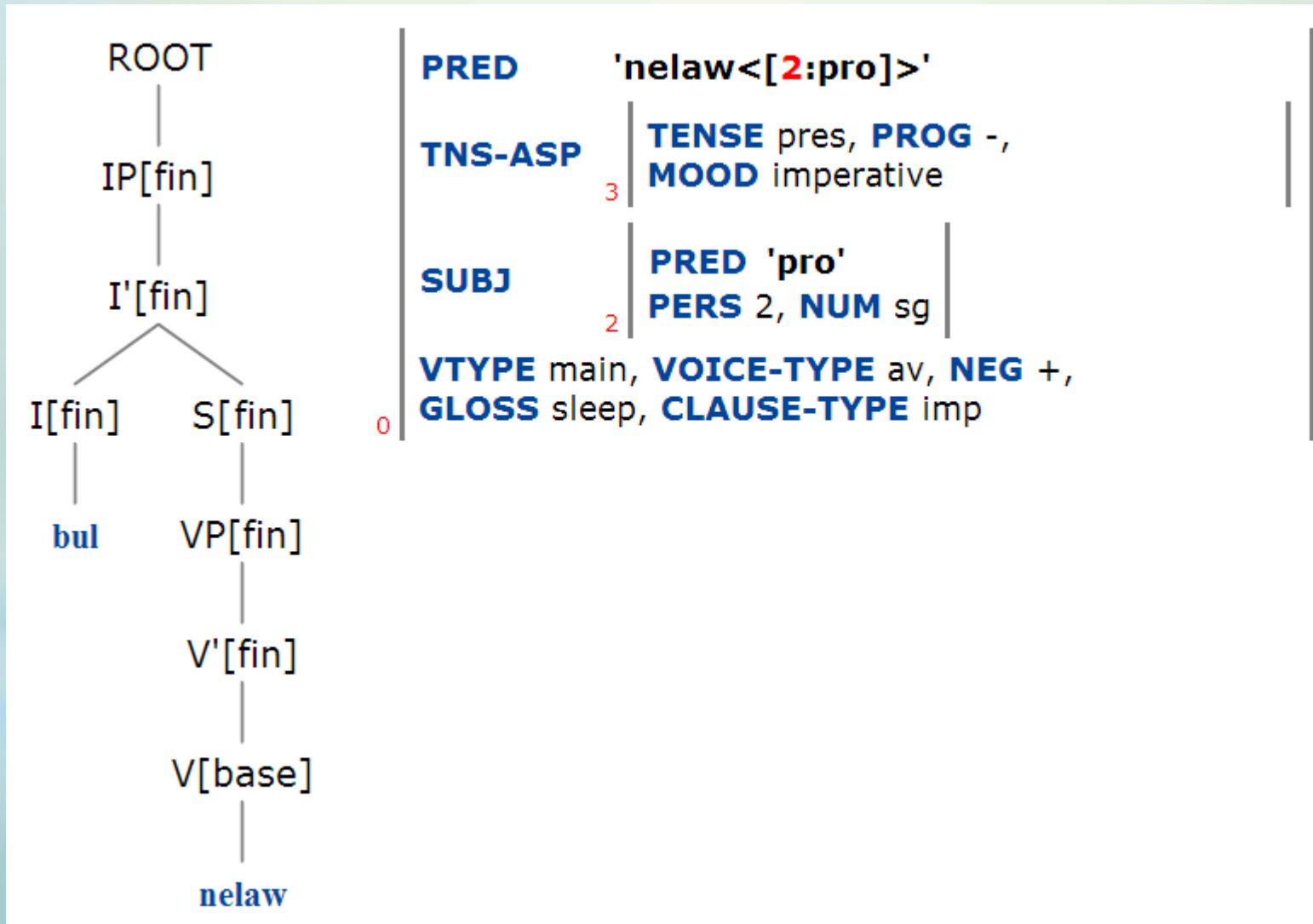
5.1. Comments and tentative suggestions

1. NEG-ADJUNCT at the clausal level **is** strange. Negation does not seem to be on a par with (ordinary) adjuncts. For instance, a clause-level NEG-ADJUNCT licenses n-words ADJUNCTS **AND ARGUMENTS** in Hungarian. It seems to be more feasible to assume, at least for Hungarian(-type languages), a clausal NEG feature that licenses n-words (whether arguments or adjuncts).

2. Affixal negation also adds to this consideration.

3. "It is not clear, either, how you can treat *I didn't not go.* with just NEG-ADJUNCT." I think it is not clear, either, how you can treat this with just NEG+. – This seems to require a special treatment anyhow.

4. For the treatment of n-words, a NEG+ feature (or POL=negative) at the clausal level seems to be intuitive (also see 1. above), AND necessary/efficient for generation.

5.2. Comments and tentative suggestions

5. The inventory of "negation devices" so far:

- ADJUNCT-NEG for clausal negation

- NEG=+ for clausal negation

- POL=negative for constituent negation – in English (cf. *I had no time*): [SPEC [QUANT [PRED=no, POL=negative]]]

6. The current implementation in HunGram:

- NEG=+ (possibly combined with ADJUNCT-NEG) for clausal negation

- ADJUNCT-NEG for constituent negation

7. Another possibility (for Hungarian, at least):

- NEG=+ for clausal negation

- POL=negative for constituent negation (OR VICE VERSA)

5.3. Comments and tentative suggestions

8. Metalinguistic and/or VP negation, which can be combined with clausal negation (see point 3 above), most probably requires a special treatment in any approach. I think this could be naturally handled by ADJUNCT-NEG (cf. it is not true that…):

(1) *Én nem* (ADJ-NEG) *nem* (NEG=+) *hívtam*   *meg*   *senki-t.*
I   not   not   invited.1sg   pv   #nobody-acc
'I didn't not invite anybody.'

• Notice that it is the second *nem* that licenses n-words.

9. A paper at LFG'15? (Or a round-table?) (Or another round in Bergen?)

Acknowledgement

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References

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Laczkó, Tibor. 2012. On the (Un)Bearable Lightness of Being an LFG Style Copula in Hungarian. In Butt, Miriam & King, Tracy H. eds. *Proceedings of the LFG '14 Conference*, Udayana University, Bali. Stanford: CSLI Publications, 341-361.

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http://typo.uni-konstanz.de/redmine/projects/pargram/wiki/Negation