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Control Verbs Require a Modified Analysis of Verbal Modifiers in Hungarian

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1.1. Introduction

Goal of the presentation

- to develop a radically modified version of Laczkó's (2021) LFG analysis of Hungarian verbal modifiers (VMs) in general, and a significantly new treatment of preverbs in particle–verb constructions (PVCs), the most problematic type of VMs, in particular
  - this is necessitated by the challenges posed by the combination of control verbs with VM constructions

1.2. Introduction

Structure of the presentation

1. Introduction
2. Verbal modifiers
3. Previous analyses
4. The new challenge
5. The new analysis
6. Conclusion

Acknowledgement

References

2.1. Verbal modifiers

VMs in Hungarian have two main types

(A) preverbs (aka verbal particles or converbs) constituting particle–verb constructions (PVCs) with their lexical verbs

- PVCs can be
  - productive (and fully compositional), see (1)
  - non-productive (and ranging from compositional to fully non-compositional), see (2), which is fully non-compositional, because the lexical verb form **fej-ez* 'head-Vsuf' does not even exist on its own

(1) *A* *rák* *ki* *mász-ott* *a* *folyó-ból.*
the crab.NOM out crawl-PAST.3SG the river-out.of
'The crab crawled out of the river.'

(2) *Az* *elnök* *ki* *fej-ez-te* *együttérzés-é-t.*
the president. NOM out head-Vsuf-PAST.3SG sympathy-his-ACC
'The president expressed his sympathy.'

2.2. Verbal modifiers

VMs in Hungarian have two main types

(B) designated arguments selected by individual verbs, which can be (i) fully referential (ii) reduced (iii) idiom chunks – (3) exemplifies (i)

(3) *Ma* *Péter* *a* *városunk-ba* *érkezett.*
today Peter.NOM the city.our-into arrived
'Today Peter arrived in our city.'

- both (A) and (B) VM types must immediately precede the verb in neutral (non-focussed, non-wh-interrogative and non-negative) sentences, cf. (1) and (1'), and (3) and (3')

(1') *A* *rák* *nem* *mász-ott* *ki* *a* *folyó-ból.*
the crab.NOM not crawl-PAST.3SG out the river-out.of
'The crab did not crawl out of the river.'

(3') *Ma* *ki* *érkezett* *a* *városunk-ba?*
today who.NOM arrived the city.our-into
'Who arrived in our city today?'

2.3. Verbal modifiers

(A) preverbs pose the much greater theoretical challenge

- PVCs involving preverbs exhibit a notorious mixture of lexical and syntactic properties
- lexical
  - they are complex verbs, often non-compositional, see (2)
  - both non-compositional and compositional PVCs can productively serve as input to derivational processes like event nominalization
- syntactic
  - their two elements are systematically separable syntactically, see (1) and (1'); moreover, even when the preverb immediately precedes the lexical verb in all decent modern approaches they occupy two distinct syntactic positions – preverb: VM, lexical verb: V (⇔ in standard Hungarian descriptive grammars they make up one morphological and (hence) syntactic word, "sanctioned" by orthographical convention: *kimászott*)

3.1. Previous analyses

- for a detailed and critical comparative overview of a variety of syntactic and lexicalist approaches in the generative paradigm, see Chapter 3 of Laczkó (2021)
- here I briefly present my account in Laczkó (2021), based on Laczkó (2013), which is a considerably modified version of Laczkó & Rákosi's (2011) analysis motivated by Forst et al. (2010)

Laczkó & Rákosi (2011)

- productive PVCs are treated in the syntax by means of LFG-XLE's restriction operator, i.e. complex predicate formation in the syntax
- non-productive PVCs are handled lexically by means of LFG-XLE's CHECK features and concatenation template

3.2. Previous analyses

Laczkó (2013, 2021)

- even the productive PVC type needs to be handled lexically, in terms of complex predicate formation in the lexicon
  - based on causativization, preverb reduplication and nominalization facts

(4) *fejez* V
(↑ PRED) = '%FN < (↑ SUBJ) (↑ OBJ) >'
(↑ CHECK _PRT-VERB) =c +
(↑ PRT-FORM) =c ki
~(↑ DIR)
@(CONCAT (↑ PRT-FORM) # stem %FN).

(5) *mászik* V
(↑ PRED) = 'out < 'crawl < (↑SUBJ) NULL >' (↑OBL) >'
(↑ CHECK _PRT-VERB) =c +
(↑ PRT-FORM) =c ki
(↑ DIR) =c out.

(6) *ki* PRT
(↑ PRT-FORM) = ki
(↑ CHECK _PRT-VERB) = +
{ (↑ FOCUS)
| ~(↑ FOCUS)
(↑ CHECK _VM) = + }
((↑ DIR) = out).

(4): the lexical concatenation treatment of the non-productive type exemplified in (2)
(5): complex predicate formation takes place in the lexicon in the case of the productive type
(6) the preverb has a single lexical form with an optional DIR feature (present in the compositional PVC and absent in the non-compositional counterpart)

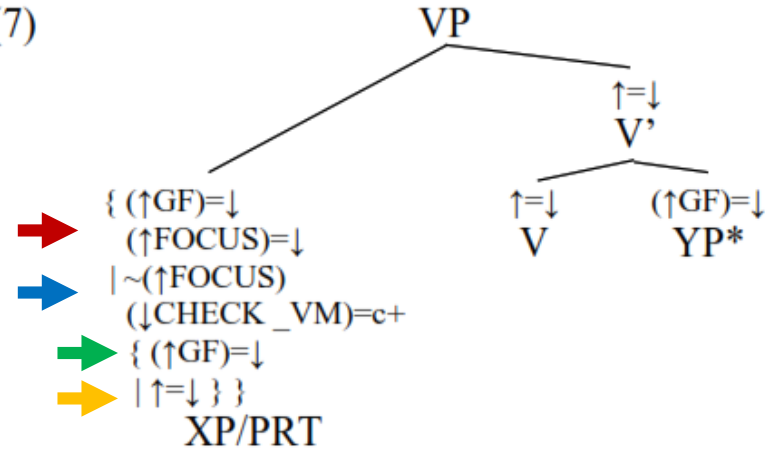
→ a uniform lexical treatment of both PVC types

3.3. Previous analyses

Laczkó (2021)

- preverbal complementarity: VMs, focused constituents, *wh*-phrases and the negative particle fight for the same Spec,VP position – in (7) only VM vs.

(7)



(8) *érkezik*, V (↑ PRED) = 'arrive < (↑ SUBJ) (↑ OBL) >'
{ (↑ FOCUS)
|~(↑ FOCUS)
(↑ OBL CHECK _VM) = + }

(6) *ki* PRT (↑ PRT-FORM) = ki
(↑ CHECK _PRT-VERB) = +
{ (↑ FOCUS)
|~(↑ FOCUS)
(↑ CHECK _VM) = + }
((↑ DIR) = out).

- a constituent with any GF can have the FOCUS DF
- if there is no focussed constituent, a designated VM constituent must occupy this position
- the VM (XP), selected by the individual verb, bears a GF
- the VM (PRT) is a preverb co-head

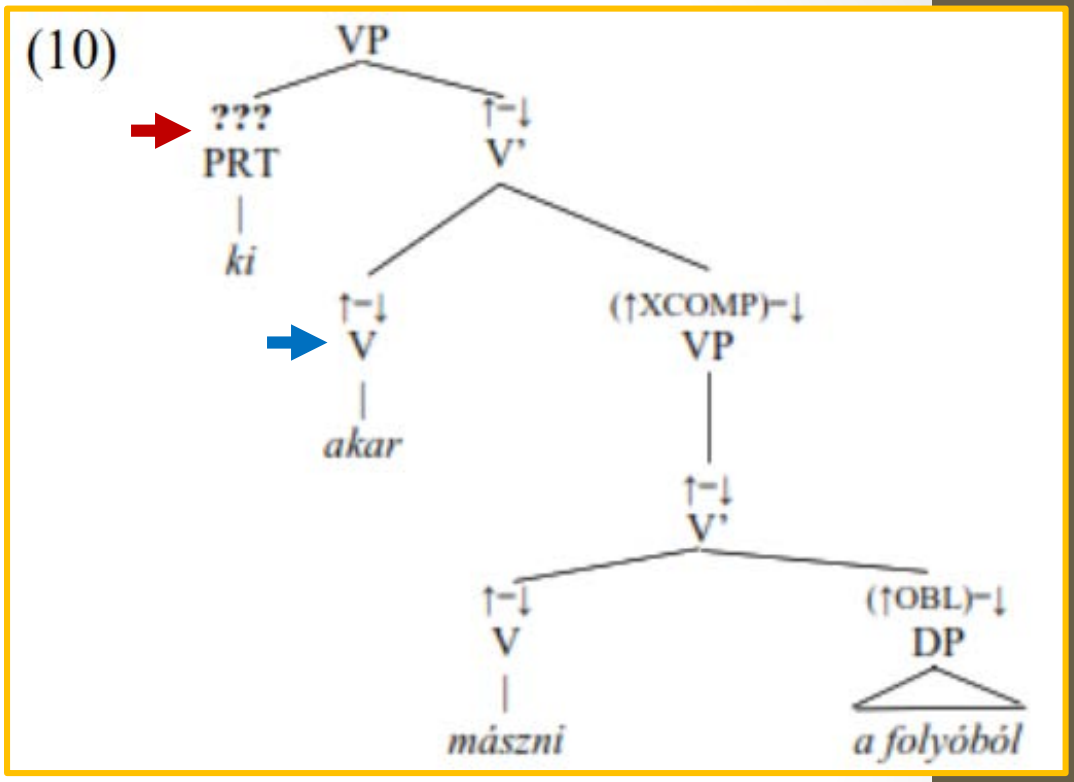
4.1. The new challenge

(9) *A* *rák* *ki* *akar* *mász-ni* *a* *folyó-ból.*
the crab.NOM out wants crawl-INF the river-out.of
'The crab wants to crawl out of the river.'

- *akar* 'want' is a "stress-avoiding" verb (see Kálmán et al. 1989): it requires the immediately preceding position (its Spec,VP) to be filled by a constituent: whether a focused phrase or a VM (in neutral sentences)
- (9) is a neutral sentence, and the verb's VM requirement is satisfied in such a way that the PRT VM of the verb's XCOMP argument fills this "upstairs" VM position, see (10)

4.2. The new challenge

- the insurmountable **problem** for **Laczkó (2021)**: the functional co-head annotation of the preverb of the PVC cannot be felicitously employed in this configuration
  - reason: in the analysis of the (downstairs) PVC, the verb and its own preverb need to be functional co-heads in the same local domain (in the VP headed by *mászni* 'climb.INF' in (10)) – and we can't make the preverb *ki* 'out', the finite matrix verb *akar* 'want' and the head of the downstairs VP, *mászni* 'climb.INF' functional co-heads (because the downstairs VP is the XCOMP of the matrix verb)



- an additional formal task related to (9) and (10): to encode the focus/VM requirement of "stress-avoiding" verbs like *akar* 'want'

5.1. The new analysis

CONSIDERATIONS AND STEPS (1)

a) **the preverb in a PVC needs to bear a GF for its occurrence in a non-local configuration**

b) **this GF can only be OBL$_\theta$**

   i. the basic general meaning of the words belonging here is adverbial (*be* 'in', *ki* 'out', *fel* 'up', etc.) except for the merely perfectivizing *meg* 'PERF'

   ii. the common syntactic categories of these words in Hungarian are Adv, see the previous examples, or P (postposition) *át, keresztül* 'across' – both directly relatable to OBL$_\theta$

c) following from (bii), **it is more feasible to use the category labels Adv and P** (determined by the general, independent use of these preverbal elements) than the specific and (at the same time) umbrella label PRT, used so far

5.2. The new analysis

CONSIDERATIONS AND STEPS (2)

d) in their compositional, meaningful uses the preverbs are true semantic arguments of their verbal predicates bearing an OBL GF

- their typical semantic feature is path ('in, out, across, etc.'), i.e. they are OBL_{PATH}s (see a similar MP approach in É. Kiss (2002)

e) in their non-semantic use they have a non-thematic OBL GF

- in this use they do not have a PRED feature; instead, they have a FORM feature

- logical objection: the OBL function is canonically characterized as semantically restricted, usually held to be incompatible with a non-thematic constituent
- however, e.g. Laczkó (2021) shows that in Hungarian there are idiom chunks bearing OBL GFs – from this it follows that non-thematic OBLs need to be allowed

Ma Péter pali-ra vette János-t.
today Peter.NOM paul-onto took John-ACC
"Today Peter made a dupe of John."

vesz, V (↑ PRED) = 'take < (↑ SUBJ) (↑ OBJ) > (↑ OBL)'
(↑ OBL FORM) = PALIRA
{ (↑ FOCUS)
| ~(↑ FOCUS)
(↑ OBL CHECK _VM) = + }.

5.3. The new analysis

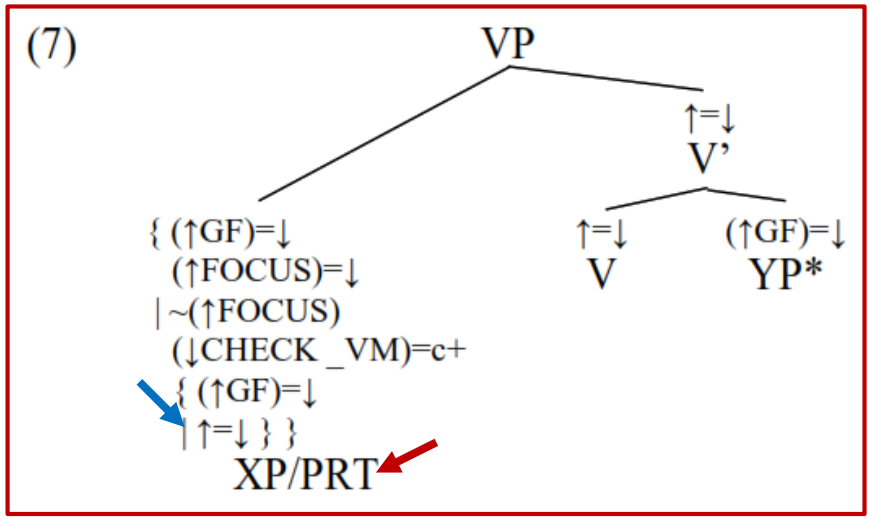
CONSIDERATIONS AND STEPS (3)

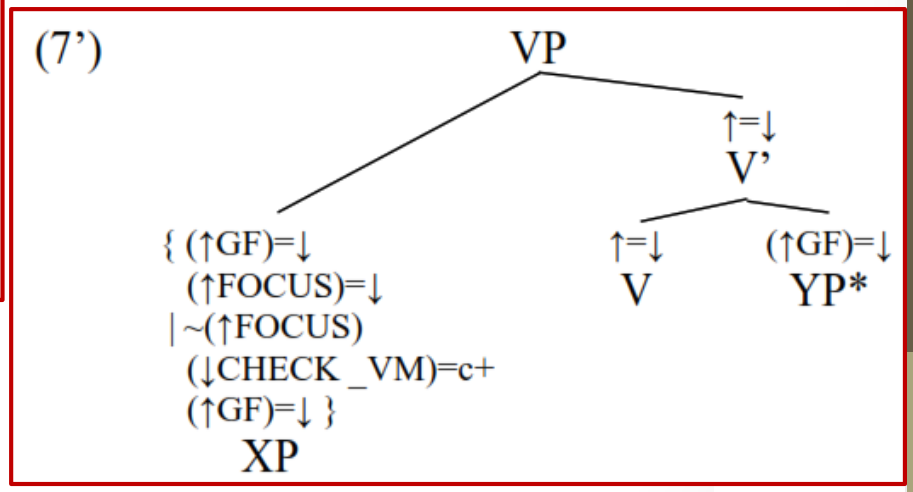
f) the representation in (7) can be simplified in two interrelated respects

i. we can eliminate PRT, a special cover category label: { Adv(P) | P(P) }

ii. no PRT → no need for the alternative functional head annotation

- **Type A (preverbs) and Type B (all other VMs) can be treated in a uniform fashion**





5.4. The new analysis

CONSIDERATIONS AND STEPS (4)

g) the new lexical forms (1)

(4) *fejez* V (↑ PRED) = '%FN < (↑ SUBJ) (↑ OBJ) >'
(↑ CHECK _PRT-VERB) =c +
(↑ PRT-FORM) =c ki
~(↑ DIR)
@(CONCAT (↑ PRT-FORM) # stem %FN).

(11) *fejez* V (↑ PRED) = '%FN < (↑ SUBJ) (↑ OBJ) >' (↑ OBL)
(↑ OBL FORM) =c ki
{ { (↑ FOCUS)
| ~(↑ FOCUS)
((↑ OBL) CHECK _VM) = + }
| { ((XCOMP ↑) FOCUS)
| ~((XCOMP ↑) FOCUS)
(((XCOMP ↑) OBL) CHECK _VM) = + } }
@(CONCAT (↑ OBL-FORM) # stem %FN).

(6) *ki* PRT (↑ PRT-FORM) = ki
(↑ CHECK _PRT-VERB) = +
{ (↑ FOCUS)
| ~(↑ FOCUS)
(↑ CHECK _VM) = + }
((↑ DIR) = out).

(13) *ki* Adv { (↑ PRED) = 'out'
| (↑ FORM) = ki }.

no need for the CHECK _PRT-VERB feature at all

5.5. The new analysis

CONSIDERATIONS AND STEPS (5)

g) the new lexical forms (2)

(5) *mászik* V

(↑ PRED) = 'out < 'crawl < (↑SUBJ) NULL >' (↑OBL) >'
(↑ CHECK _PRT-VERB) =c +
(↑ PRT-FORM) =c ki
(↑ DIR) =c out.

(12) *mászik* V

(↑ PRED) = 'crawl < (↑SUBJ) (↑OBL_{PATH}) (↑OBL_{SOURCE}) >'
(↑ OBL_{PATH} %FN) =c 'out'
{ { (↑ FOCUS)
| ~(↑ FOCUS)
((↑ OBL) CHECK _VM) = + }
| { ((XCOMP ↑) FOCUS)
| ~((XCOMP ↑) FOCUS)
(((XCOMP ↑) OBL_{PATH}) CHECK _VM) = + } }.

(6) *ki* PRT (↑ PRT-FORM) = ki
(↑ CHECK _PRT-VERB) = +
{ (↑ FOCUS)
| ~(↑ FOCUS)
(↑ CHECK _VM) = + }
((↑ DIR) = out).

(13) *ki* Adv { (↑ PRED) = 'out'
| (↑ FORM) = ki }.

no need for the CHECK _PRT-VERB feature at all

5.6. The new analysis

CONSIDERATIONS AND STEPS (6)

h) the "stress-avoiding" property of verbs like *akar* 'want' should be captured by a specific **combination of two CHECK features**

i. a new (mnemonic) feature: CHECK _AVOID-STRESS

ii. coupled with the usual CHECK _VM feature

(14)
{ (↑GF)=↓
(↑FOCUS)=↓
| ~(↑FOCUS)
(↓CHECK _VM)=c+
(↑GF)=↓
| ~(↑**FOCUS**)
(↑CHECK _AVOID-STRESS)=c+
(↓CHECK _VM)=c+
(↑GF)=↓}
XP

akar, V (↑ PRED) = 'want < (↑ SUBJ) (↑ XCOMP) >'
{ (↑ FOCUS)
| ~(↑ FOCUS)
(↑ CHECK _AVOID-STRESS) = + }

- annotations associated with Spec,VP
- already contains the modifications made earlier (no PRT, no ↑=↓)
- first two disjuncts: old – third: new
- the second and the third can be collapsed by inserting (↑CHECK _AVOID-STRESS)=$_c$+ of the third into the second as an optional annotation
- (↑CHECK _AVOID-STRESS)=+ is associated with lexical forms of stress-avoiding verbs like *akar* 'want'

5.7. The new analysis

CONSIDERATIONS AND STEPS (7)

h) the construction type in (9), in which the VM of the head of the XCOMP VP occupies the Spec,VP VM position of the finite matrix control verb should be captured by **optional inside-out function application in the lexical form of the head of the XCOMP VP**
   - see the disjunctions in (11) and (12): in addition to the normal local specification, there is an optional XCOMP path out

(9) *A* *rák* *ki* *akar* *mász-ni* *a* *folyó-ból.*
the crab.NOM out wants crawl-INF the river-out.of
'The crab wants to crawl out of the river.'

(11) *fejez* V
(↑ PRED) = '%FN < (↑ SUBJ) (↑ OBJ) >' (↑ OBL)
(↑ OBL FORM) =c ki
{ ((XCOMP ↑) FOCUS)
| ~((XCOMP ↑) FOCUS)
(((XCOMP ↑) OBL) CHECK _VM) = + }
@(CONCAT (↑ OBL-FORM) # stem %FN).

(12) *mászik* V
(↑ PRED) = 'crawl < (↑SUBJ) (↑OBL_{PATH}) (↑OBL_{SOURCE}) >'
(↑ OBL_{PATH} %FN) =c 'out'
{ ((XCOMP ↑) FOCUS)
| ~((XCOMP ↑) FOCUS)
(((XCOMP ↑) OBL_{PATH}) CHECK _VM) = + }.

6.1. Conclusion

- a radically modified analysis of Hungarian VMs in general and of the preverb type (Type A) in particular
- necessitated by stress-avoiding control predicates taking XCOMP VPs headed by PVCs
- the category of the preverb in the PVC is no longer PRT: Adv or P
- the preverb is no longer a functional co-head: it bears a thematic or non-thematic OBL GF
- two CHECK features (CHECK _AVOID-STRESS and CHECK _VM) are used, combined with inside-out function application
- a further advantage: a uniform treatment of Type A and Type B VMs

6.2. Conclusion

a note on *meg* [+PERF]

- Hungarian preverbs in this analysis have two uses
  i. compositional PVCs: thematic OBL $(\uparrow \text{PRED}) = \ldots$
  ii. non-compositional PVCs: non-thematic OBL $(\uparrow \text{FORM}) =_c \ldots$

(13) *ki* Adv { (↑ PRED) = 'out'
| (↑ FORM) = ki }.

- the only preverb that never has a PRED feature is *meg*:

meg Adv $(\uparrow \text{FORM}) =_c \text{meg}$
$(\uparrow \text{PERF}) = +$

6.3. Conclusion

a minor technical note: in the lexical form of the main verb of a non-compositional PVC, for simplicity of exposition kept Laczkó's (2021) CONCAT template, which is a formal implementational device for superficially representing the PRED feature value of the entire PVC

(4) *fejez* V
(↑ PRED) = '%FN < (↑ SUBJ) (↑ OBJ) >'
(↑ CHECK _PRT-VERB) =c +
(↑ PRT-FORM) =c ki
~(↑ DIR)
@(CONCAT (↑ PRT-FORM) # stem %FN).

(11) *fejez* V
(↑ PRED) = '%FN < (↑ SUBJ) (↑ OBJ) >' (↑ OBL)
(↑ OBL FORM) =c ki
{ { (↑ FOCUS)
| ~(↑ FOCUS)
(↑ OBL) CHECK _VM) = + }
| { ((XCOMP ↑) FOCUS)
| ~((XCOMP ↑) FOCUS)
(((XCOMP ↑) OBL) CHECK _VM) = + } }
@(CONCAT (↑ OBL-FORM) # stem %FN).

- in f-structure: (↑ PRED) = '**ki#fejez** < (↑ SUBJ) … >'

  (a) *fejez* doesn't exist on its own (b) *ki* has no PRED feature

- a more appropriate treatment:

  (↑ PRED) = '**express** < (↑ SUBJ) … >'

Acknowlegement

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KRE

Responses to reviewers' comments (1)

A. *Suppose we take the earlier analysis of ki mászik, according to which it is a complex predicate (one f-structure). As far as I can tell, the simplest solution is to annotate the preterminals above ki and mászik with XCOMP*

   i. a brute force c-structure-annotational solution that would require several additional annotations/constraints to handle just the types of verbs (the matrix verb and the verb involved in the PVC) → it would be far from being simpler than my proposal, and much less general, see my next reply below

   ii. it could not handle the other VM type (designated argument of an individual PVC verb carrying a variety of GFs: OBJ, OBL and XCOMP)

B. *You could make the particle ki 'out' into an OBL governed by the verb mászik, as proposed in the abstract. Then (Bi) either the annotation over ki would have to be XCOMP OBL; (Bii) or there's a non-branching node between that node and ki, with XCOMP on the upper one and OBL on the lower one, which is the new preterminal.*

   i. the same kind of brute force c-structure-annotational solution in itself

   ii. can be extended to both VM types; however, only with a complex and baroque system of c-structure annotations (far from being simpler than my solution) – otherwise it would massively overgenerate

Responses to reviewers' comments (2)

C. *I would have welcomed some broader considerations of this data for the theory of control*

a) *it has been argued on the basis of Romance clitic-climbing data (e.g. Italian* 'lo voglio leggere/voglio leggerlo' it-I want.read.INF/I want read.INF-it*) that these structures can be monoclausal and the displaced position of 'ki' in example (9) seems at first sight very similar*

- this is not of the clitic-climbing type, to begin with: the "climbing constituent" is not a pronoun-like element, and it can even be a full referential XP
- this would mean unlimited complex-predicate-formation in the syntax, which goes against LFG's basic assumptions
- in Hungarian you can even have multiple predicate embedding: *ki akarja tudni fejezni* [out wants to.be.able to.express] this would make the proposed alternative approach even less feasible

b) *It is also usually assumed that 'want' verbs subcategorise for COMP rather than, as here XCOMP, and indeed Szűcs (LFG Procs, 2018) argues for replacing COMP with OBJ precisely for Hungarian 'akar'.*

- this is no problem for my analysis: the relevant control relations can be captured formally in these GF scenarios as well (and I argue against Szűcs's proposal independently anyhow)