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# Control Verbs Require a Modified Analysis of Verbal Modifiers in Hungarian

### 1. Introduction

Hungarian verbal modifiers (VMs) have been extensively and intensively analysed. For a detailed and critical comparative overview of a variety of syntactic and lexicalist approaches, references and an LFG analysis, see Chapter 3 of Laczkó (2021).

VMs have two major types: (A) *preverbs* (aka coverbs or verbal particles), see (1) and (2) (B) *designated* (often but not always reduced) *arguments* of the verb, see (3). (Below we use Laczkó's 2021 examples.)

(1)	Α	rák	ki	mász-ott	а	folyó-ból.			
	the	crab.NOM	out	crawl-PAST.35	G the	river-out.of			
	'The c	rab crawled	out of	the river.'					
(2)	Az	elnök	ŀ	ki fej-ez-te		együttérzés-é-t.			
	the	president. N	IOM d	out head-Vsu	if-past.3sg	sympathy-his-ACC			
	'The p	president exp	ressed	his sympathy.'					
(3)	Ma	Péter	а	városunk-ba	érkezett				
	today	Peter.NOM	1 the	e city.our-into	arrived				
	'Toda	'Today Peter arrived in our city.'							

Combinations of preverbs and verbs are usually referred to as PVCs (particle-verb constructions). They can be either productive and compositional or non-productive and (sometimes entirely) non-compositional. (1) exemplifies a productive PVC, while (2) illustrates a fully non-compositional PVC. In (3) the verb takes a referential DP as its designated oblique argument. It is a shared property of both major VM types that they must immediately precede the verb in neutral sentences, i.e. in sentences that do not contain a focused constituent, a *wh*-constituent or clause negation, because in these non-neutral configurations the focus, the question phrase and the negative particle must precede the verb and the VM must occur postverbally. Of the two VM types, (A) poses the much greater theoretical challenge. PVCs involving preverbs exhibit a notorious mixture of lexical and syntactic properties. They are complex verbs, often non-compositional, and both non-compositional and compositional PVCs can productively serve as input to derivational processes. By contrast, their two elements are systematically separable syntactically. In the talk we concentrate on a construction type in which the VM is in an infinitival constituent that is combined with a finite control verb. We argue that this construction requires a specifically augmented treatment of PVCs in particular.

## 2. Previous LFG analyses

Capitalizing on Forst et al.'s proposal (2010), who discuss the problems posed by PVCs in German, English and Hungarian for both theory and implementation, Laczkó & Rákosi (2011) develop an analysis of the Hungarian spatial PVC type exemplified in (1) and (2) above in the spirit of Forst et al. (2010). They treat the productive (1) by means of LFG-XLE's restriction operator (complex predicate formation in the syntax), and they use the lexically encoded concatenation template for the non-productive (2).

On the basis of three phenomena involving PVCs (causativization, preverb reduplication and nominalization), Laczkó (2021) argues that even the productive type needs to be handled lexically, in terms of complex predicate formation in the lexicon. Consider his lexical representations of the verbal elements in (1) and (2).

(4)	fejez	V	$(\uparrow PRED) = "FN < (\uparrow SUBJ) (\uparrow OBJ) >"$	(6)	ki	<b>PRT</b> ( $\uparrow$ <b>PRT-FORM</b> ) = ki
			$(\uparrow CHECK \_PRT-VERB) = c +$			$(\uparrow CHECK \_PRT-VERB) = +$
			$(\uparrow PRT-FORM) = c ki$			$\{ (\uparrow FOCUS) \}$
			~(↑ DIR)			~(↑ FOCUS)
			@(CONCAT (↑ PRT-FORM) # stem %FN).			$(\uparrow CHECK VM) = + \}$
						$((\uparrow \text{DIR}) = \text{out}).$
(5)	mászik	V	$(\uparrow PRED) = $ out < 'crawl < ( $\uparrow SUBJ$ ) NULL >' ( $\uparrow OBL$ )	>'		
			$(\uparrow CHECK \_PRT-VERB) = c +$			
			$(\uparrow PRT-FORM) = c ki$			
			$(\uparrow \text{DIR}) = c \text{ out.}$			

(4) shows, the lexical concatenation treatment of the non-productive type exemplified in (1). As (5) demonstrates, complex predicate formation takes place in the lexicon in the case of the productive type; thus, a uniform lexical treatment is employed. The preverb has a single lexical form with an optional DIR feature (which is present in the compositional PVC and absent in the non-compositional counterpart), see (6).

Laczkó (2021) accounts for the preverbal complementarity of VMs, focused constituents, *wh*-phrases and the negative particle by assuming that they fight for the same Spec,VP position. He uses disjunctive functional annotations associated with this position. For ease of exposition in (7) we only show the (simplified) encoding of

the VM vs. focus contrast. The first disjunct of the main disjunction says that a constituent bearing any GF can have the FOCUS DF. The second disjunct says that if there is no focused constituent then a designated VM constituent must occupy this position, see (1), for instance. This is encoded by the constraining VM CHECK feature. The defining member of this feature pair is included in the lexical forms of preverbs, see (6), or in the lexical form of a verb that selects a designated VM argument, see the (simplified) lexical form of *érkezik* 'arrive' in (8). This encodes that either the sentence contains a focused constituent, which as a rule is in Spec,VP, or this position must be occupied by the oblique argument of the verb.



The disjunction in the second disjunct of the main disjunction encodes the following duality. If the VM is a preverb (PRT), it has the functional (co-)head annotation, in the analysis of (1) and (2), and if it is a designated argument, it receives its customary GF, in the analysis of (3).

### 3. The new challenge

Laczkó's (2021) analysis can handle the construction types exemplified in (1)-(3). Now consider the following example.

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

The verb *akar* 'want' requires the immediately preceding position (its Spec,VP) to be filled by a constituent: whether a focused phrase or a VM, because it belongs to a group of Hungarian verbs frequently referred to as "stress-avoiding", for a list, see Kálmán et al. (1989). (9) is a neutral sentence and the 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).



The immediate and, we claim, insurmountable problem for Laczkó's (2021) approach is that the functional cohead annotation of the preverb of the PVC cannot be felicitously employed in this configuration, hence the question marks above PRT. The verb and the preverb need to be functional co-heads in the same local domain. Given the functional head status of the PRT, its occurrence outside the local domain cannot even be handled by means of functional uncertainty.

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

### 4. The new proposal

The development of the novel analysis of Type A VMs (i.e. the preverbs of PVCs) requires the following considerations and steps.

(A) The preverb in a PVC needs to bear a GF for its occurrence in a non-local configuration to be formally capturable. We argue that this GF can only be OBL $\Theta$ . This receives substantial support from the following facts. 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'. In addition, the common syntactic categories of these words in Hungarian are

Adv, see the previous examples, or P (postposition) *át, keresztül* 'across'. Both are directly relatable to the OBL GF.

(B) From (A) it follows that these preverbs are most naturally treated as belonging to the word class categories Adv and P (the choice between them depending on their use in other configurations), so in their lexical forms these category specifications can be naturally used, which is more feasible than the PRT category.

(C) As regards the actual status of preverbs in spatial PVCs, in this new approach we assume that in their compositional, meaningful uses they 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. In their non-semantic use they have a non-thematic OBL GF, and perfectivizing *meg* only has this function. In this use they do not have a PRED feature; instead, they have a FORM feature. The following logical objection can be raised here: the OBL function is canonically characterized as semantically restricted, which is usually held to be incompatible with a non-thematic constituent. However, Laczkó (2021), for instance, shows that in Hungarian there are idiom chunks bearing OBL GFs. From this it follows that non-thematic OBLs need to be allowed.

(**D**) In this approach the representation in (7) can be simplified in two interrelated respects: we can eliminate PRT and, consequently, we do not need the disjunction in the second main disjunct, because there is no need for the functional head annotation. This also means that we can treat Type A and Type B VMs in a uniform fashion. (**F**) We propose the lowing forms in (11) (12) instead of Lagragia (2021) antrias in (4) (6).

(E) We propose the lexical forms in (11)-(13) instead of Laczkó's (2021) entries in (4)-(6), respectively.

(11)	fejez	V	$(\uparrow PRED) = `\%FN < (\uparrow SUBJ) (\uparrow OBJ) > `(\uparrow OBL)$	(14)	{ (↑GF)=↓
. ,			$(\uparrow OBL FORM) = c ki$		(↑FOCUS)=↓
			$\{ (((XCOMP) \uparrow) FOCUS) \}$		~(↑FOCUS)
			$\downarrow \sim (((XCOMP) \uparrow) FOCUS)$		$(\downarrow CHECK VM)=c+$
			$((((XCOMP) \uparrow) OBL) CHECK VM) = + \}$		(↑GF)=↓
			$@(CONCAT (\uparrow OBL-FORM) \# stem %FN)$		~(↑FOCUS)
(12)	mászik	V	$(\uparrow \text{ PRED}) = \text{`crawl} < (\uparrow \text{SUBJ}) (\uparrow \text{OBL}_{PATH}) (\uparrow \text{OBL}_{SOURCE}) > \text{`}$		(↑CHECK_AVOID-STRESS)=c+ (↓CHECK_VM)=c+
			$(  OBL_{PATH} \neq 0 \Gamma N) = c  out$		( <b>↑GF)=</b> ↓}
			$\{(((XCOMP)^{\uparrow})) \cap COS)$		XP
			$ \sim(((\Lambda \cup \cup VI)^+) \cap \cup \cup \cup \cup)$		
			$((((XCOMP) +) OBL_{PATH}) CHECK VM) = + \}.$		
(13)	ki	Adv	$\{(TPRED) = `out'$		
			$ (\uparrow FORM) = ki \}.$		

There is no need for the PRT-VERB CHECK feature pair in any one of the three lexical forms, because the verbs can encode the FORM or the PRED value of the preverb in the given PVC, see (11) and (12), respectively, so the required co-occurrence of the two elements of the PVC in the intended meaning is appropriately prescribed.

(F) In the case of (9) and (10) we propose that the "stress-avoiding" property of verbs like *akar* 'want' should be captured by a specific combination of CHECK features. We introduce a mnemonic feature: CHECK \_AVOID-STRESS. The Spec,VP position should have the set of disjunctive annotations in (14). This already contains the modifications we argued for above: no PRT category and no consequential functional head annotation. The entirely new part is the the third disjunct in bold. When there is no focus in the sentence the first annotation constrains the presence of the AVOID-STRESS CHECK feature. The defining member of this feature is associated with lexical forms of stress-avoiding verbs like *akar* 'want'. This new CHECK feature is coupled with the usual VM CHECK feature. All this encodes is that if there is a stress-avoiding verb in the sentence, the Spec,VP position must be filled with a constituent associated with the VM CHECK feature.

(G) We propose that 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 disjunction in (11) and (12). In addition to the normal local specification, there is an optional XCOMP path out.

### 5. Conclusion

In the talk we propose a new analysis of Hungarian verbal modifiers necessitated by their occurrence in control constructions. We claim that in addition to solving the problem posed by such constructions it is a more feasible alternative to Laczkó's (2021) analysis of Hungarian PVCs. It is its further advantageous feature that it makes a uniform treatment of the two major types of Hungarian VMs possible.

#### References

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