

**AN LFG ANALYSIS OF
VERBAL MODIFIERS IN HUNGARIAN**

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Abstract

In this paper I present the crucial aspects of an LFG (and XLE-implementable) analysis of the major types of Hungarian verbal modifiers (VMs). In accordance with the general approach outlined in Laczkó (2014a), I assume that focussed constituents, VMs and the (verb-adjacent) question phrase are in complementary distribution in [Spec,VP]. I distinguish two major types of VMs: particles (a.k.a. preverbs) belong to the first type, and the rest of VMs to the other type. On the basis of Laczkó's (2013) analysis, I treat both compositional and non-compositional PVCs lexically, with both the verb and particle having their respective lexical forms with appropriate functional annotations and cross-referencing (including the use of CHECK features). The particle and the verb are analyzed as functional coheads in both PVC types. All the other VMs, with their own grammatical functions, are lexically selected by their verbs in these verbs' lexical forms. Depending on the nature of the VM involved, the verb can impose various constraints on it.

1 Introduction

In Laczkó (2014a), this volume, I develop the essential aspects of a comprehensive LFG analysis of the preverbal portion of Hungarian finite clauses (designed to be XLE-implementable), and I also discuss what certain aspects of my approach can contribute to augmenting LFG's parametric space potentially available to c-structure—function associations. I propose a general formal apparatus for treating constituents in the topic field, in the quantifier zone and in the specifier position of the VP. It is one of my central assumptions that focussed constituents, verbal modifiers (VMs) and question phrases are in complementary distribution in [Spec,VP]. In this paper, I develop a detailed analysis of a range of VMs and their complementarity with focussed constituents.

The structure of the paper is as follows. In this section, I present the major VM types. In section 2, I discuss the relevant aspects of previous LFG (or LFG-compatible) accounts. In section 3, I develop my analysis of VMs. In section 4, I make several concluding remarks.

Below I exemplify the most important types of VMs, which I analyze in this paper,¹ and I also point out their relationship to focussing. Consider the examples in (1)-(6).

(1) *verbal particle (= coverb/preverb)*

<i>Ma</i>	<i>Péter</i>	<i>fel</i>	<i>hívta</i>	<i>János-t.</i>
today	Peter.NOM	up	called	John-ACC
'Today Peter called up John.'				

¹ For a comprehensive overview with empirical generalizations, see Komlósy (1985).

(2) *focussed constituent*

<i>Ma</i>	<i>Péter</i>	.....	<i>JÁNOS-T</i>	.....	<i>hívta</i>	.....	<i>fel.</i>
today	Peter.NOM	.....	John-ACC	.....	called	.....	up

‘Today Peter called up JOHN (and not Joe, for instance).’

(3) *unfocussed bare/reduced (object) argument*

<i>Ma</i>	<i>Péter</i>	.....	<i>újság-ot</i> ²	.....	<i>olvasott.</i>
today	Peter.NOM	.....	newspaper-ACC	.....	read.PAST

‘Today Peter read a newspaper / newspapers
(= did newspaper-reading).’

(4) *focussed bare/reduced (object) argument*

<i>Ma</i>	<i>Péter</i>	.....	<i>ÚJSÁG-OT</i>	.....	<i>olvasott.</i>
today	Peter.NOM	.....	newspaper-ACC	.....	read.PAST

‘Today Peter read A NEWSPAPER / NEWSPAPERS (= did NEWSPAPER-reading, as opposed to book-reading, for example).’

(5) *unfocussed designated (oblique) XP argument*

<i>Ma</i>	<i>Péter</i>	.....	<i>a városunk-ba</i>	.....	<i>érkezett.</i>
today	Peter.NOM	.....	the city.our-into	.....	arrived

‘Today Peter arrived in our city.’

(6) *focussed designated (oblique) XP argument*

<i>Ma</i>	<i>Péter</i>	.....	<i>A VÁROSUNK-BA</i>	.....	<i>érkezett.</i>
today	Peter.NOM	.....	the city.our-into	.....	arrived

‘Today Peter arrived IN OUR CITY (and not in Pécs, for instance).’

(7) *unfocussed small clause XCOMP argument*

<i>Ma</i>	<i>Péter</i>	.....	<i>piros-ra</i>	.....	<i>festette</i>	.....	<i>a kapu-t.</i>
today	Peter.NOM	.....	red-onto	.....	painting	.....	the gate-ACC

‘Today Peter painted the gate red.’

(8) *idiom chunk (pali ‘Paul’ = dupe)*

<i>Ma</i>	<i>Péter</i>	.....	<i>pali-ra</i>	.....	<i>vette</i>	.....	<i>János-t.</i>
today	Peter.NOM	.....	Paul-onto	.....	took	.....	John-ACC

‘Today Peter made a dupe of John.’

² The plural form of this bare noun would also be acceptable with this verb.

- A) The verbs in these examples are in bold, and the vertical lines help to identify the constituents immediately preceding the verb (and also the constituents following the verb).
- B) (1) and (2) demonstrate the most famous preverbal complementarity in Hungarian: the particle of particle verb constructions (PVCs) and a focussed constituent are in complementary distribution. Practically, any argument or adjunct can be focussed.
- C) Various groups of verbs require one of their designated arguments to precede them in a reduced (“bare”) form in neutral sentences. These bare nouns are typically singular in form, and they are underspecified (or, rather, unspecified) for number. In (3), the verb *olvas* ‘read’ takes a bare object argument as its VM. Certain other verbs take their bare subject, and yet others take their bare oblique argument as their VM.³
- D) There are also a great number of verbs like *érkezik* ‘arrive’ in (5) that require a clearly fully-fledged XP as their oblique VM.⁴ This fact questions all analyses of any theoretical persuasions which assume that VM + verb combinations are uniformly complex predicates with a lexical unit status. For a detailed discussion, see sections 2 and 3. In an important sense, particle VMs in particle verb constructions and fully-projected oblique XP VMs represent the two extreme points on a scale of various types of VMs. For details, see section 3.
- E) (7) exemplifies a small clause XCOMP VM.
- F) As (8) demonstrates, the predicate of an idiomatic expression can also require its idiom chunk to function as a VM.
- G) As point B) states, practically any constituent can be focussed, in which case it prevents a VM from occurring preverbally. It is important to note, however, that preverbal VMs themselves can receive focus stress and interpretation. Two such cases are exemplified in (4) and (6). In the

³ Consider the following examples.

- (i) *Víz* ***ment*** *a szemembe.*
 water.NOM went the eye.1SG.into
 ‘Water got into my eyes.’
- (ii) *János* *moziba* ***ment.***
 John.NOM cinema.into went
 ‘John went to the cinema.’

In subsection 3.2.2, I will point out that all verbs requiring a bare noun VM can be treated in a uniform manner, the only difference being that they specify different grammatical functions for their VM.

⁴ Verbs with different argument structures can belong here. In (5) there is an intransitive verb, while in (i) below there is a transitive one, and both require an oblique XP VM.

- (i) *János* *az asztalra* ***tette*** *az üveget.*
 John.NOM the table.onto put the bottle.ACC
 ‘John put the bottle on the table.’

former, a bare object noun VM is focussed, and in the latter an oblique XP VM is the focussed constituent. As the extended translations show, ordinary focussing, as in (2), and VM focussing, as in (4) and (6), can express what is generally called identificational focus (i.e., exhaustive identification with exclusion). However, a VM can only function as an identificational focus if it is meaningful enough, for obvious reasons: if it is not meaningful, nothing can be identified (and other entities or properties excluded). For instance, the particle in (1) is used in a non-compositional particle verb construction; therefore, it cannot function as an identificational focus. However, it can receive the usual focus stress. Compare (1) and (9). As the English translation shows, here we are dealing with a different kind of focus, standardly called *verum focus*: the truth value of the entire statement is emphatically verified. The very same holds for the focussed counterpart of (8), see (10).

(9) *Ma Péter FEL hívta János-t.*
 today Peter.NOM up called John-ACC
 ‘Today Peter DID call up John.’

(10) *Ma Péter PALI-RA vette János-t.*
 today Peter.NOM Paul-onto took John-ACC
 ‘Today Peter DID make a dupe of John.’

H) It is to be noted that if a sentence does not contain either a VM or a focussed constituent, the verb itself can receive focus stress. In this case, an ambiguity may arise: (i) the meaning of the verb can be interpreted as being “identificationally focussed” or (ii) the sentence expresses *verum focus*. Consider (11). This potential ambiguity extends to all other cases of identificationally focussed VMs.

(11) *Péter IMÁDJA János-t.*
 Peter.NOM adores John-ACC
 (i) ‘Peter ADORES John (does not only like him)’.
 (ii) ‘Peter DOES adore John.’

2 On some previous LFG(-compatible) analyses

In Laczkó (2014a), in Laczkó (2014b), both in this volume, and in this paper, I give an overview of various aspects of previous LFG analyses in complementary distribution as much as possible.

Börjars et al. (1999) offer some programmatic considerations against functional projections like TopP and FocP (a la GB/MP) for languages like Hungarian and some hints at a possible LFG alternative with an extended verbal projection in which word order regularities are capturable by dint of

Optimality Theory (OT) style constraints. For further details, see Laczkó (2014a).

Adopting the basic representational assumptions and ideas of Börjars et al. (1999) but in an entirely Optimality Theoretic framework, Payne and Chisarik (2000) outline an analysis of Hungarian preverbal syntactic phenomena: the complementarity of constituent question expressions, focussed constituents, the negative particle and verbal modifiers. Given that their account also addresses negation phenomena, I discuss it in Laczkó (2014b), this volume.

Mycock (2006) develops a detailed and comprehensive typological analysis of constituent questions in her LFG framework. Below I discuss her basic assumptions that are immediately important from our [Spec,VP] perspective. For additional remarks, see Laczkó (2014a).

(A) Following a wide-spread view, Mycock also assumes that a VM and the verb make up a word both morphologically and phonologically, and they also constitute a single unit semantically. She does not go into any details about VMs. In this paper, I argue against this view of VMs, including the preverb.

(B) She assumes that a preverbal focussed constituent occupies the [Spec,VP] position and she does not adopt a F(oc)P view, which is also in line with general LFG assumptions about functional projections, see the brief discussion of Börjars et al. (1999) above. This contrasts with GB's/MP's solid cartographic architecture and principles.⁵

Gazdik (2012), capitalizing on Gazdik & Komlósy (2011), outlines an LFG analysis of Hungarian finite sentence structure, predominantly driven by discourse functional assumptions and considerations. Below is a summary of the most important ingredients of her approach.

1. Following (and somewhat extending) recent approaches to discourse functions (DFs), she breaks them down into feature values, see Table 1.⁶

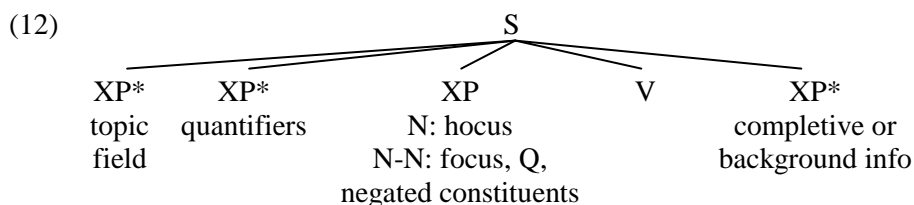
⁵ It is interesting in this context that É. Kiss (2002), for instance, on the basis of cartographic considerations, argues against positionally collapsing focussed constituents and VMs, which is (partially inherently) characteristic of É. Kiss (1992, 1994).

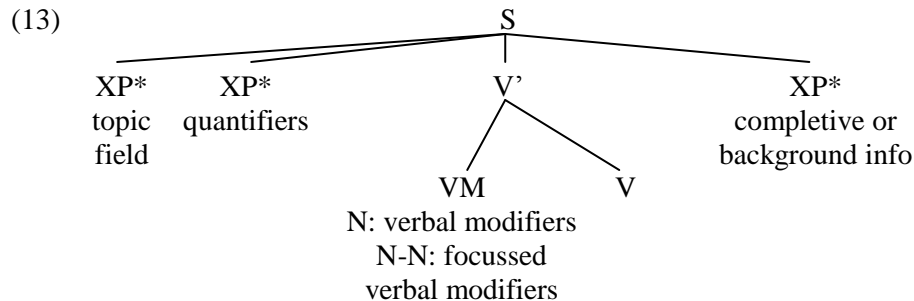
⁶ Hocus is a special notion, see Kálmán (1985) and Kálmán (2001). Gazdik gives the following description (2012: 66-67). Hocus is assumed to be the counterpart in neutral sentences of ordinary focus in non-neutral sentences (the two sentence types have radically different intonation patterns). Both hocus and focus strictly occur immediately preverbally, and they constitute a phonological word with the verb (which loses even its word-initial stress). Both express identification; however, focus expresses the exhaustive/exclusive type of identification. Therefore, focus needs a special context, for instance, a question-answer or a correction situation, while hocus can be used without any special context, in “out-of-the-blue” sentences. For further details and examples, see Gazdik (2012).

+ prominent		– prominent	
+ <i>discourse-linked</i>	– <i>discourse-linked</i>	+ <i>discourse-linked</i>	– <i>discourse-linked</i>
thematic shifter, contrastive topic, question word (Q)	focus, hocus, question word (Q)	completive information	background information

Table 1. Gazdik’s (2012) classification of DFs

2. She claims that Hungarian sentences do not even have a VP constituent, i.e. they are flat (except that she does admit a V’ constituent in one of the two major sentence structure types she distinguishes, see points 3 and 4 below).
3. As regards the immediately preverbal position, which Gazdik calls prominent preverbal position (PPP), she writes: “The question is now how to accommodate the PPP and the elements immediately preceding the verb into the structure. One option is to assume one PPP, which accounts for the complementary distribution of the hocus, the focus, question words and verbal modifiers. The other way is to assume two positions, the PPP for the focus, the hocus and question words, and another for verbal modifiers, which would account for the prosodic and lexical unit of verbal modifiers and the verb (for instance, verbs undergo nominalization together with verbal modifiers). In this case, the verbal modifier and the verb constitute a complex predicate under the V’ node. However, this necessitates the introduction of additional rules that exclude the co-occurrence of the PPP and V’ projection. In this paper I opt for the second possibility, keeping in mind, [sic!] that the first cannot be excluded, either” (2012: 81-82).
4. Relying heavily on Kálmán’s (2001) descriptive characterization of word order in Hungarian sentences, and on the basis of the previous point, Gazdik distinguishes two sentence structure types, and she assumes that both structures are available to both neutral (N) and non-neutral (NN) sentences, and N and NN sentences are distinguished by their different prosodic behaviours.





My remarks on Gazdik's approach are as follows.

- Basically, I sympathize with Gazdik's general treatment of DFs, see point 1. I agree that all these functions need to be handled at a distinct representational level (in information or discourse structure). However, for simplicity of exposition, as the DF details are not relevant to the main thrust of this paper, I simply follow the classical LFG convention of representing TOP and FOC in f-structure. DF issues are at the forefront of current LFG investigations (see, for instance, Mycock 2013, Mycock & Lowe 2014, and Lowe & Mycock 2014), and in this light the notion of hocus, which Gazdik adopts from Kálmán (2001), has to be carefully studied, and it has to be explored how it can be accommodated in the newly emerging DF-system.⁷
- As far as Gazdik's rejection of the VP constituent in Hungarian sentence structure is concerned, see point 2 above, I do not share her view, and in Laczkó (2014a) I defend the postulation of VP and I posit it in a general parametric context from an LFG perspective.
- In my opinion, points 3 and 4 pose some crucial and rather insurmountable problems for the strictly syntactic ingredients of Gazdik's approach. While it has to be appreciated that Gazdik basically concentrates on the discourse functional dimension of Hungarian sentences (as the title of her paper also indicates) and the truly syntactic aspects are only programmatic at most, these aspects are rather problematic, and, therefore, I think they seriously weaken the overall approach.
 - a) Gazdik does not give any justification for choosing the PPP vs. V' duality of structure.
 - b) This duality account is tantamount to subscribing to the split focus—VM view, fundamentally assuming distinct syntactic positions for these two major constituent types.

⁷ My preliminary impression is that its treatment could be channelled into the treatment of information (as opposed to identificational) focus. I intend to explore this dimension in future work; see my remarks in section 4.

- c) Gazdik herself admits that special additional rules need to be introduced for ensuring the preverbal complementarity of the two constituent types. She does not even offer a hint as to how this could be carried out in her system (and, as far as I can see, this would be far from being a trivial task, especially in the light of the next point).
- d) Gazdik practically multiplies Hungarian sentence structure variants by assuming that both the PPP version and the V' version are available in both neutral and non-neutral sentences. This gives us 4 variants altogether, which makes the entire setup somewhat suspicious, allowing for redundancy on the one hand,⁸ and making the task of capturing basic instances of complementarity rather challenging, on the other hand.
- e) Following the general descriptive tradition, Gazdik uses the umbrella term VM rather loosely and vaguely. On the one hand, in an appropriate LFG (or other generative theoretical) representation, the VM symbol is more than questionable (it is not an appropriate syntactic category to begin with), and, on the other hand, the real categories it subsumes in Gazdik's rather informal presentation are so diverse that they themselves call for a careful, detailed and differential (i.e. "individualized") treatment: preverbs, (obligatorily) bare nouns and fully fledged XPs are lumped together.
- f) As the quote in point 3 above testifies, Gazdik also subscribes to the widely spread, and definitely untenable, sweeping generalization that a (preverbal) VM and a verb always make up a complex predicate and form a lexical unit. On the one hand, the notion of complex predicate is typically not satisfactorily defined (if at all) in various approaches, and, on the other hand, it is more than questionable whether in Gazdik's "goal secondary predicate" example in (14) *Szegedre* 'to Szeged' and the verb are analyzable as a lexical unit in any (generative) linguistically meaningful sense.⁹

- (14) 'János 'Szegedre utazott.
 John Szeged.SUBL travel.PST
 'John travelled to Szeged.'

⁸ For instance, the preverbal PPP in a V'-less structure can be focussed (as opposed to a hocus constituent sitting in that position), and a VM below V' can also be optionally focussed, which yields two distinct preverbal syntactic focus positions.

⁹ This is example (6) in Gazdik (2012: 62). I have left everything (including the apostrophes, bolding, which simply identifies the VM constituent, and the glosses) in (14) above intact. The apostrophes indicate ordinary word-initial stress. The absence of an apostrophe in front of the verb shows that *Szegedre* and *utazott* constitute a single phonological word. However, it would be highly implausible to assume that they also make up a lexical unit.

In Laczkó (2014a), I discuss several aspects of Laczkó & Rákosi (2008-2014), our implemented grammar. Here I only repeat my comment on our treatment of the [Spec,VP] position. The current version of our grammar is rather limited in this respect. It posits only a focussed constituent or a particle belonging to VMs (no question expressions and no other types of VMs). We assume that the preverb (having the syntactic category PRT, short for particle) is a non-projecting word (in the sense of Toivonen (2001)). From the complementarity of the two categories it also follows that a PRT can never be focussed in our approach.

3 Towards a comprehensive LFG analysis of VMs

In subsection 3.1, I briefly present the relevant details of the general approach I propose in Laczkó (2014a), and in subsection 3.2, I develop my analysis of Hungarian VMs.

3.1. On Laczkó (2014a)

In the spirit of Laczkó & Rákosi (2008-2014) and also partially inspired by É. Kiss (1992), in Laczkó (2014a) I assume the following skeletal sentence structure.¹⁰

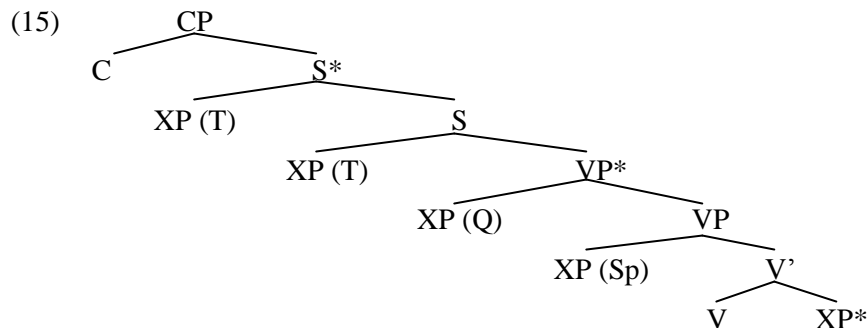


Table 2 (next page) gives an overview of the essential features of the disjunctive annotations associated with the topic field (T), the quantifier zone (Q) and the [Spec,VP] position (Sp), schematically represented in (15).¹¹

¹⁰ S* and VP* encode the possibility of multiple left-adjunction.

¹¹ As I point out in Laczkó (2014a), the annotations associated with the quantifier field and the [Spec,VP] position are part of my new proposal, and it is one of the future tasks for our HunGram grammar to test their implementability.

T: { (c-)topic | sent.adv. }	Q: { quantifier | WH }	Sp: { focus | WH | VM }
{ (↑GF)= ↓ { ↓ ∈ (↑ TOPIC) | ↓ ∈ (↑ CONTR-TOPIC) } | ↓ ∈ (↑ ADJUNCT) (↓ADV-TYPE)=c SENT }	(↑GF)= ↓ { (↓CHECK_QP)=c + | (↑CHECK_VM-INTER)=c + (↓CHECK_QP-INTER)=c + (↓SPECIFIC)=c + }	{ (↑GF)= ↓ (↑FOCUS)= ↓ (↑GF)= ↓ (↓CHECK_VM-INTER)=c + ((↑CHECK_VM-INTER)= +) | { (↑GF)= ↓ | ↑=↓ } (↓CHECK_VM)=c + }

Table 2. Overview of functional annotations

Let me make some comments on the annotations I associate with the [Spec,VP] position in Table 2. I take these points from Laczkó (2014a).

- The three main disjuncts encode the complementary distribution of focussed constituents, question phrases and VMs, respectively.
- The first disjunct is straightforward.¹²
- In the second disjunct, the first XLE-style (constraining) CHECK feature equation¹³ requires the presence of a question phrase in this designated position. Its defining counterpart is included in the lexical forms of question words.
- In the second disjunct, the second, optional, defining CHECK feature equation serves as the licenser of the occurrence of question phrases in the quantifier field.¹⁴ When it is not present in the structure, no question phrase can occur in the quantifier position. When it is present, it requires the presence of one or more question phrases. From the perspective of question phrases in the quantifier position: they can only occur there if the [Spec,VP] position is filled by a question phrase. Given the main topic of this paper: the complementarity and the interaction of VMs and

¹² However, a reminder is in order. Although I subscribe to the very strong recent view in LFG that discourse functions are to be uniformly represented in i-structure (for a useful discussion of the relevant literature, see Gazdik 2012), for the sake of simplicity of exposition here I apply the classical LFG representation of TOPIC and FOCUS in f-structure.

¹³ The essence of XLE's CHECK featural device is that these CHECK features come in pairs: there is a defining equation member and there is a constraining equation counterpart. These pairs can be applied to ensure that two elements should occur together in a particular configuration (i.e. this is an LFG-XLE way of encoding genuine instances of context sensitivity), or that a particular element should occur in a designated position. It is this latter property that is utilized here. The former property is made use of, for instance, in the treatment of particle verb constructions: verbs and particles are specified by these feature pairs in their lexical forms in such a way that they need to co-occur in syntax. For further details, see subsection 3.2.1.

¹⁴ Its constraining counterpart is associated with the VP-adjoined position, see the (↑CHECK_VM-INTER)=c + annotation in the middle column of Table 2.

focus, in the formal analysis I will only model these two categories and leave out the “interrogative dimension”.

- The third disjunct handles VMs. The defining counterpart of its constraining CHECK feature equation is included in the lexical forms of the elements that can occupy this position in neutral sentences (in non-focussed sentences and non-constituent-question sentences). The functional head annotation ($\uparrow=\downarrow$) in the disjunction is for particles, while the ($\uparrow\text{GF}$)= \downarrow annotation is for all the other types of VMs.

3.2 An analysis of the major VM types

The presentation of my account below follows the order in which these VM types were introduced and exemplified in subsection 1.2.

3.2.1. Particles

In Laczkó & Rákosi (2011) we analyze certain types of Hungarian spatial particle verb constructions (PVCs). Consider the examples we use in that paper in (16) and (17).

(16) *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.’

(17) *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.’

The sentence in (16) illustrates the compositional use of the preverb *ki* ‘out’, while (17) shows a truly non-compositional use (given that the simplex verb form *fejerte* does not even exist on its own). In the vein of Forst et al.’s (2010) proposal for the LFG analysis of particle verb constructions in English, German and Hungarian and its XLE implementation we develop an analysis and its implementation along the following lines. We assume that preverbs are non-projecting words in the sense of Toivonen (2001), and their syntactic category is PRT.¹⁵ We analyze non-compositional PVCs lexically and compositional PVCs syntactically. In the latter case, we make use of XLE’s restriction operator in our functional annotations in c-structure. As a result: syntactic argument structure composition (i.e. syntactic complex predicate formation) is assumed and implemented. One of the main motivations for this approach is that XLE can handle compositional, productive (and also novel) PVCs without having recourse to specific and

¹⁵ In using this PRT category, we also follow the practice of the English and German implementational grammars.

individual lexical form representations. An obvious drawback is that LFG's subscription to the derivational dimension of the Strong Lexicalist Hypothesis is thereby violated.

In Laczkó (2013), I revisit this PVC analysis, and on the basis of evidence from (morphological) causativization, nominalization and particle reduplication I argue for a uniform lexicalist treatment of both non-compositional and compositional PVCs.

I propose the following lexical form for the preverb.

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

It is a “shared” lexical form for its use in both non-compositional and compositional PVCs. Its crucial property is that even in the compositional use it has no PRED feature,¹⁶ it only has a PRT-FORM feature, just like in the non-compositional use. The other uniform trait of the preverb in both uses is that it is constrained to a PVC configuration, see the _PRT-VERB CHECK feature in the second line. The disjunction between the focus annotation and the _VM CHECK feature in the third and fourth lines encodes that in neutral (i.e. non-focussed) sentences the particle has to occupy the customary preverbal VM position. It is the optional (↑DIR)=out equation that differentiates between the compositional and non-compositional uses of the preverb in this approach. The idea is that in the compositional use, it carries this spatial-directional feature,¹⁷ and it explicitly contributes this feature to the entire PVC, and in the non-compositional use it does not.

In the spirit of my analysis in Laczkó (2013), but in a simplified, less XLE-specific way, for the purposes of this exposition I assume the lexical forms in (19) and (20) for the two relevant simplex verbs. Notice that in this approach we do not need a special set of functional annotations in c-structure for encoding restriction (complex predicate formation) in the syntax in the

¹⁶ In our analysis in Laczkó & Rákosi (2011), in the compositional use the particle is treated as the main predicate, and it takes the verb as one of its semantic arguments (without any grammatical function): complex predicate formation takes place in the syntax.

¹⁷ Note that on this lexical account the preverb itself cannot have a PRED feature, because in the syntax there is no restriction operator: both the preverb and the verb have the functional head annotation, i.e. they are functional co-heads. In this respect, they are treated in the same way as non-compositional PVCs, and only one of them can have a PRED feature (which is a general LFG constraint on functional co-heads).

case of compositional PVCs. Instead, in both PVC types, both the verb and the particle get the usual and uniform functional (co-)head annotation.

- (19) *fejez* V
 (↑PRED) = ‘express < (↑SUBJ) (↑OBJ) >’
 (↑CHECK _PRT-VERB) = +
 (↑PRT-FORM) = c ki
 ~(↑DIR).

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

3.2.2. Reduced arguments

Consider (3), repeated here as (21) for convenience.

- (21) *Ma Péter újság-ot olvasott.*
 today Peter.NOM newspaper-ACC read.PAST
 ‘Today Peter read a newspaper / newspapers
 (= did newspaper-reading).’

Recall from section 1 that (i) certain verbs (e.g. *olvas* ‘read’ in (21)) also permit the plural form of the bare noun and (ii) a verb may select other (subject or oblique) arguments to be expressed as a bare noun VM than the object argument, as in (21).

The analysis runs as follows. A verb like *olvas* ‘read’ optionally allows (or, rather, requires) its object to be expressed by a bare noun in neutral sentences. This has to be encoded in the lexical form of such a predicate by means of a set of optional annotations, as in (22).

- (22) *olvas*, V (↑PRED) = ‘read < (↑SUBJ) (↑OBJ) >’
 ((↑OBJ NUMBER) = SG
 ~(↑OBJ INDEX)
 { (↑FOCUS)
 | (↑OBJ CHECK _VM) = + }).

This set of optional annotations encodes the following. The predicate allows for a “reduced” (= bare nominal) object argument. The morphological form of its object is singular obligatorily: (↑OBJ NUMBER) = SG and it is unspecified for “semantic” number; and, therefore, it is non-referential (see the English translation of (21)). This is captured by the following (negative)

existential constraint: $\sim(\uparrow\text{OBJ INDEX})$. This reduced argument must occur in the [Spec,VP] position: $(\uparrow\text{OBJ CHECK}_{\text{VM}})=+$, unless the sentence contains a focussed constituent, which can be any phrase (including the reduced argument itself). The reason why the (additional alternative) lexical specification is needed is twofold. (A) It is only (a definable) set of verbs that can have this option. (B) The reduced argument can occur anywhere in a non-neutral sentence, so its special form and interpretation cannot be appropriately captured solely by c-structural (positional and annotational) means.¹⁸ These two crucial observations hold for the analysis of all the other VM types to be presented below.

3.2.3. Oblique arguments

Consider (5), repeated here as (23), and the simplified lexical form of the verb *érkezik* ‘arrive’ in (24).

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

(24) *érkezik*, V ($\uparrow\text{PRED}$)= ‘arrive $\langle(\uparrow\text{SUBJ})(\uparrow\text{OBL})\rangle$ ’
 { ($\uparrow\text{FOCUS}$)
 | $\sim(\uparrow\text{FOCUS})$
 ($\uparrow\text{OBL CHECK}_{\text{VM}}=+$) }.

The analysis of this VM type is similar to that of the reduced argument VM type with the following differences. (i) In this case, the VM requirement is obligatory in neutral sentences. (ii) Following from (i), there are no (additional) constraints on the designated oblique argument (because in neutral sentences it must occupy the preverbal VM position). As I mentioned in section 1, this type seriously questions any analysis of VMs assuming that a VM and the verb make up a lexical unit (along some vaguely defined complex predicate and/or incorporation lines). In section 1, I also pointed out that a verb taking this VM type can be either intransitive (as in (23)) or transitive, see example (i) in Footnote 4 repeated here as (25), and the lexical form of the verb *tesz* ‘put’ in (26).

(25) *János az asztal-ra tette az üveg-et.*
 John.NOM the table-onto put the bottle-ACC
 ‘John put the bottle on the table.’

¹⁸ If a verb also admits bare plural nouns then the following alternative pair of annotations can be applied: $(\uparrow\text{OBJ NUMBER})= \text{PL}$, $(\uparrow\text{OBJ SPECIFIC})=-$. This ensures that these plural nouns are interpreted non-specifically.

- (26) *tesz*, V (↑PRED)= ‘put <(↑SUBJ) (↑OBJ) (↑OBL) >’
 { (↑FOCUS)
 | (↑OBL CHECK _VM)= + }.

3.2.4. Small clause XCOMPs

Consider (7), repeated here as (27).

- (27) *Ma Péter piros-ra festette a kapu-t.*
 today Peter.NOM red-onto painted the gate-ACC
 ‘Today Peter painted the gate red.’

In this example, the verb requires a (case-marked AP) XCOMP to have the VM status in neutral sentences. Its lexical form is the same in nature as that of *tesz* ‘put’ in the previous type (except for the OBL vs. XCOMP GF contrast). Compare (26) and (28).

- (28) *fest*, V (↑PRED)= ‘paint <(↑SUBJ) (↑OBJ) (↑XCOMP) >’
 (↑OBJ)= (↑XCOMP SUBJ)
 { (↑FOCUS)
 | ~(↑FOCUS)
 (↑XCOMP CHECK _VM)= + }.

3.2.5. Idiom chunks

Consider (8), repeated here as (29) and the lexical form of the verb *vesz* ‘take’ as used in this idiomatic expression in (30).

- (29) *Ma Péter pali-ra vette János-t.*
 today Peter.NOM Paul-onto took John-ACC
 ‘Today Peter made a dupe of John.’

- (30) *vesz*, V (↑PRED)= ‘take <(↑SUBJ) (↑OBJ) > (↑OBL)’
 (↑OBL FORM)= PALIRA
 { (↑FOCUS)
 | ~(↑FOCUS)
 (↑XCOMP CHECK _VM)= + }.

Note that the oblique VM type transitive predicate *tesz* ‘put’ in (30) and the oblique idiom chunk VM type transitive predicate *vesz* ‘take’ follow the same pattern, except that in the case of the former the oblique VM is a semantic argument, whereas in the case of the latter it is just a formal (non-semantic) oblique constituent.¹⁹

¹⁹ Note that idioms like this make it necessary to assume that occasionally even the semantically restricted OBL function can be assigned to a non-semantic constituent.

4 Concluding remarks

- 1) In this paper I have presented the crucial aspects of an LFG (and XLE-implementable) analysis of the major types of Hungarian verbal modifiers.
- 2) In accordance with the general approach outlined in Laczkó (2014a), I assume that focussed constituents, verbal modifiers and the (verb-adjacent) question phrase are in complementary distribution in [Spec,VP]. Following from the main topic of the paper and for simplicity of exposition, here I only formally modelled the complementarity (and interaction) of VMs and focussing.
- 3) I have shown that VMs can also be focussed, and, depending on their nature, they can be used to express two types of focus: identificational focus and verum focus.
- 4) I distinguish two major types of VMs: particles (= preverbs) belong to the first type, and the rest of VMs to the other type. On the basis of Laczkó's (2013) analysis, I treat both compositional and non-compositional PVCs lexically, with both the verb and particle having their respective lexical forms with appropriate functional annotations and cross-referencing (including the use of CHECK features). The particle and the verb are analyzed as functional coheads in both PVC types. All the other VMs, with their own grammatical functions, are lexically selected by their verbs in these verbs' lexical forms. Depending on the nature of the VM involved, the verb can impose various constraints on it.
- 5) I argue against assuming that all VM + verb pairs are lexical units or combinations, and when the VM immediately precedes the verb, (obligatory) syntactic incorporation takes place in some (theory-dependent) form. Three comments are in order here.
 - a) Some VM + verb pair types must really be treated as lexical combinations, because they have a shared meaning and argument structure. In my approach, PVCs (of both major types) and idioms belong here. However, even in these cases "lexical combination" means separate, appropriately annotated and cross-referenced lexical items which occupy distinct syntactic positions even when the VM immediately precedes the verb. This means that I reject the idea of syntactic incorporation in these instances as well.
 - b) In the case of all the other VMs, the relationship between the VM and its verb is fundamentally syntactic, except that (i) the verb requires its designated VM argument to occupy the [Spec,VP] position in neutral sentences and (ii) the verb may, in general, specify the features the VM needs to exhibit, see 4) above. Notice, however, that (i) already calls for a lexical encoding, in the verb's lexical form, of this VM requirement, because the VM—verb syntactic dependency is very often verb-specific (although there are also certain verb types, with

particular semantics and/or argument structure, that typically behave similarly in this respect).

- c) The LFG-style encoding of the VM—verb relationship in the verb’s lexical form, as proposed in this paper, makes it possible to capture the appropriate co-occurrence of the two elements (and the required properties of the VM) in both neutral and focussed sentences without employing any syntactic movement operation.
- 6) Question phrases apart, VMs and focussed constituents aspire to the [Spec,VP] position. The widely assumed, basic generalization is that in the non-neutral vs. neutral sentence binary distinction, focussed constituents occupy this designated position in the former setup and VMs occupy it in the latter. In the case of neutral sentences, the extremely strong tendency is that if the verb is combined with a particle then the particle has the VM status. There are, however, some exceptions. Consider the examples in (31) and (32).

(31) *A város a folyó két partján terül el.*
the city.NOM the river.NOM two bank.3SG.on spreads VM
‘The city lies on both banks of the river.’

(32) *A férfi gyógyszert vett be.*
the man.NOM medicine.ACC took VM
‘The man took medication.’

In both these examples, there is a PVC; however, it requires an argument (and not the particle) to occupy the [Spec,VP] position in neutral sentences. In (31), the VM is a designated oblique XP argument, and in (32), it is a bare noun object. Such examples underline a favourable aspect of the lexical treatment of VMs along the lines proposed in this paper: the special behaviour of predicates is best captured by lexical means.

- 7) In future work, I plan to explore, in a detailed fashion, what motivates (or triggers) the occurrence of a constituent in the immediately preverbal position from the perspective of focussing. My initial hypothesis is as follows (naturally, it is based on several crucial aspects of a variety of approaches).

- a) Obviously, the “common denominator” is that the preverbal constituent and the verb make up a phonological word (unit) with the verb losing its ordinary word-initial stress completely or to a considerable extent.²⁰

²⁰ It is an issue belonging to a subordinate dimension whether the intonation of the rest of the sentence after the verb follows the focus (i.e. non-neutral), “eradicating” stress pattern, with all the phrases losing their customary stress entirely or to a large extent or it follows the neutral stress pattern.

- b) This syntactic adjacency and phonological pattern of the two elements can serve two distinct purposes. On the one hand, the preverbal constituent receives a remarkable degree of prosodic salience, which enables it to encode a designated type of discourse salience (= focussing, for details, see point c) below). On the other hand, when the verb definitely makes up a lexical unit with a syntactically separable element (an obviously marked but not at all uncommon option across languages) as in the case of PVCs and idioms, this lexical unity can be naturally encoded by this configuration in neutral sentences. Given that there is always only one finite verb in a clause, and, therefore, only one prosodically salient position, the two purposes cannot be simultaneously satisfied under normal circumstances. This is the cause of the famous preverbal complementarity.²¹ Naturally, discourse salience enjoys priority.
- c) Capitalizing on Kálmán's (2001) important empirical generalizations, and by developing them further, my basic idea is that four types of focus should be distinguished in [Spec,VP]: (i) ordinary focus ("everybody's focus"): exhaustive/exclusive identification (ii) Kálmán's (2001) hocus: identification (iii) presentational focus (iv) verum focus. The differences between them are as follows. (i) cannot be used in an out-of-the-blue sentence: it has to be used as an answer to a constituent question or as a corrective sentence. (ii) can be used in an out-of-the-blue sentence, but certain "shared knowledge" or a shared presupposition is necessary for identification to be possible. (iii) can be used in an out-of-the-blue sentence, and it does not require any "shared knowledge" or any shared presupposition. (iv) emphatically verifies the truth value of a statement.
- d) I claim that a generalization assuming that the motivation for the occurrence of a constituent in [Spec,VP] is complex predicate formation in general (which is often rather vaguely defined) is untenable. And a partially related issue: I also claim that a general (uniform) syntactic incorporation analysis in the case of VMs is not feasible either. Of course, there are VM types in which the VM and the verb clearly make up a lexical unit (a complex predicate in this sense), see PVCs and idioms, for instance; however, even in these cases the VM should not be analyzed as incorporated into the verb in the syntax.
- e) The generalization I intend to explore is that the "common denominator" of the behaviour of all VMs is that they are lexically specified. At one end of the scale we have PVCs and idioms (lexical

²¹ And, I think, it is for this reason that approaches postulating a single designated syntactic position (in combination with the what-you-see-is what-you-get principle) can be considered more feasible intuitively.

but not syntactic complex predicates), and at the other end we find verbs that require one of their designated XP arguments to occupy the preverbal position in neutral sentences, for instance *érkezik* ‘arrive’. In this case, only this requirement is encoded in the verb’s lexical form. It stands to reason to assume that such verbs create a special “presentational focus” configuration for their designated argument in a neutral sentence.²²

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²² In an important sense, the properties of this VM type yield an additional motivation for assuming that focussed constituents and VMs occupy the very same syntactic position in complementary distribution: an ordinary VM (in a neutral sentence) exhibits presentational focus behaviour, a borderline case between the two domains.

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