VERBAL PARTICLES INSIDE AND OUTSIDE vP*

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Abstract: This paper investigates the basic syntax of verbal particles in Hungarian, proposing a two-stage syntactic derivation involving phrasal movement. The verbal particle first comes to occupy a verb phrase medial position, a stage that is followed by phrasal movement to a verb phrase external landing site. Here—in neutral clauses—the verbal particle immediately precedes the verb, which is also shown to leave the vP at surface structure. The verb phrase medial position of the verbal particle is identified as the specifier of a PredP flanked between vP and VP, while the verb phrase external landing site is analyzed as the specifier of TP. The adjacency of the particle and the verb is argued to be reducible to the specifier–head configuration they appear in, rather than to syntactic incorporation or to a PF-merger operation.

Keywords: verbal particle, preverb, split verb phrase, predicate inversion, Hungarian

1. Introduction

The study of the syntax of verbal particles has traditionally had its main empirical focus predominantly on Indo-European, in particular, on Slavic and Germanic languages. The Slavic prefix inventory has traditionally been divided into the "outer" or "superlexical" and the "inner" or "lex-

ical" class (abstracting away from purely perfectivizing prefixes) (see Babko-Mayala 2003; Romanova 2004; and references therein). The latter class is analogous to verbal particles in Germanic (see Svenonius 2004 and the references cited there). Hungarian preverbs are comparable to "lexical" prefixes of Slavic, and to particles of Germanic. All these elements characteristically have a basic spatial/locative meaning, and are typically homophonous (or, depending on the analysis, identical) with (spatial) adpositions in the given language. They are used to form predicates with a resultative interpretation—especially, though not exclusively (e.g., *eat up*), with verbs of motion (e.g., *push in, put on*). They may incur a shift in the meaning of the verbal predicate, including a change in argument structure, and they often form an idiomatic combination with the verb. By and large, they are unique, i.e., no more than a single element of this type may compose with the verbal stem.

In contrast to Slavic verbal prefixes, and similarly to separable Germanic particles, Hungarian preverbs can appear at a distance from the verb (both the verb and the preverb can be subjected to movement on its own). But like verbal prefixes in Slavic, and unlike Germanic particles (cf. Svenonius 2004), they determine lexical/situation aspect: they normally render the predicate telic (though exceptions exist, e.g., *felolvas,* lit. up-read 'read out') (e.g., Kiefer 1994; É. Kiss 2006d).

The cross-linguistic study of verbal particles has contributed greatly to a better understanding of the internal microstructure and semantic composition of the layered verb phrase (see e.g., Ramchand 2008 and references therein). In syntactically based approaches, Germanic particles are typically analyzed as (secondary) predicate elements, originating in the predicate part of a resultative Small Clause generated below the verb (e.g., Hoekstra 1984; 1988; Hoekstra–Mulder 1990; Kayne 1985, den Dikken 1995; Svenonius 1994; 2004; Ramchand–Svenonius 2002; Ramchand 2004). The Small Clause analysis offers a neat account of how a particle/lexical prefix can turn an intransitive verb into a verbal predicate that takes an internal argument (as the subject of the Small Clause), or, in the case of originally transitive verbs, it may alter the type of the internal argument that is selected.

One prominent view holds that Germanic particles can move out of their base position by head movement, incorporating into a head in the verbal domain (cf. also inseparable particles of German). This derivation is applied to Germanic particle shift constructions, as in (1) and, modulo differences, to lexical prefix incorporation in Slavic, as in (2a) (adapted

from Rojina 2004), corresponding to (2b) (e.g., Svenonius 1994; Harley–
Noyer 1998; Ramchand–Svenonius 2002; Ramchand 2004; Rojina 2004;
cited by Svenonius 2004, 224–6). Indexed labels "FP" and "F" are meant
to be neutral with respect to assumptions about the specific categories
projected inside the layered verb phrase.[1]

(1) (a) put on the coat

      (b) [FP$_1$ put F$_1$ [FP$_2$ [F$_2$ on$_i$] [FP$_3$ the coat [F$_3$ t$_i$]]]]

(2) (a) [FP$_1$ [F$_1$ vy$_i$ + šel] [FP$_2$ [F$_2$ t$_i$] iz-za stola]]

      (b) On vy-šel   iz-za   stola.
           he out-went out.of-behind table
           'He got up from the table.'

The present work investigates the basic syntax of verbal particles (pre-
verbs) in Hungarian, a non-Indo-European language, occasionally also
highlighting analogues and comparisons with the syntax of particles/pre-
fixes in Germanic and Slavic. A two-stage syntactic derivation of Hungar-
ian verbal particles is proposed, involving phrasal movement. The verbal
particle first comes to occupy a medial position in a split verbal phrase.
This stage is then followed by phrasal movement bringing the particle to
a verb phrase external surface position. Here—in neutral clauses[2]—the
verbal particle immediately precedes the verb, which is shown to also
leave the vP at surface structure. The verb phrase medial position of the
verbal particle is identified as the specifier of a PredP flanked between
vP and VP, while the verb phrase external landing site is analyzed as
the specifier of TP.

    The structure of the paper is as follows. I start in section **2** by
briefly considering the lexical category of Hungarian preverbs, and review
evidence suggesting that they have a phrasal syntactic status. Section **3**
provides arguments that it undergoes movement out of vP in neutral

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[1] In some head-movement analyses, unlike in (1a), the particle in Germanic particle
shift incorporates into (a head containing) the verb itself. The head movement
analysis of Germanic particle shift is, of course, not unrivalled. Among others, the
other obvious transformational analysis of this positional alternation, namely one
that involves movement of the DP around the particle, has also been advocated
(e.g., den Dikken 1995; Collins – Baker 2006).

[2] The term *neutral clause* stands for a clause that does not contain clausal negation,
a narrow focus, or a *wh*-operator, which would fill the immediately preverbal slot.
See É. Kiss (2002) for a detailed account of clausal word order in Hungarian, and
for references.

clauses at the level of surface structure (ending up in an immediately preverbal position), and that the same is true of the verb. Both the PF-adjacency and the structural relation of the verb and the preverb in their surface position are examined. The section advocates the view that their adjacency is explained by their specifier–head relation, rather than by syntactic incorporation or a PF-merger operation. In section **4** it is argued that the position of the preverb must be below vP. Section **5** proposes that the paradox created by the results of sections **3** and **4** is resolved in a syntactic derivation where the movement of the verbal particle to its final position involves two stages: it first comes to occupy a verb phrase medial specifier position, viz. of a PredP flanked between vP and VP, from where it is displaced into a vP-external surface position, analyzed here as specifier of TP. Section **6** sketches some extensions.

A preliminary note is in order regarding the grammatical status of the preverb in Hungarian. The paper proceeds from the assumption that it is a syntactically autonomous word, rather than part of a complex morphological word, a compound, composed of the preverb and the verbal stem. Assuming the Lexical Integrity hypothesis (e.g., Lapointe 1980, 8; Di Sciullo–Williams 1987, 49), this view is supported by the separability of the two elements. In one class of cases of separation it is the preverb that moves away (cf. section **2.2**). On an analysis of the particle–verb combination as a lexical compound, the movement of the particle would effectively "excorporate" the non-head element from the complex. As this is a possibility that has been argued not to be available even on accounts that allow for the "excorporation" of the (host) head from complex head elements (e.g., Roberts 1991; Watanabe 1993; Neeleman 1994, 319), it militates against the analysis of the particle–verb combination as a lexical compound.[3]

It should be noted at this point that the fact that particle–verb combinations can apparently receive derivational morphology has been argued—both for Hungarian and for other languages—to constitute evidence that the PRT + V complex is a morphological unit, rather than

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[3] The particle can move away on its own even when it is non-referential; see (i) (perf = completive "perfectivizer" particle) (cf. also (9)). On Rizzi and Roberts' (1989) ECP-based proposal of head-excorporation, the movement of referential heads should be freer than that of non-referential ones.

(i) A   szerelő   látta   a   motort,   de   [**meg**]$_{ContrTop}$ sajnos   nem javította.
     the mechanic saw   the engine-acc but perf   unfortunately not repaired
     'The mechanic saw the engine, but did not repair it, unfortunately.'

assembled in syntax. Nominalizing derivational affixation is frequently used to make this point for Hungarian. The argument is far from compelling, however. This is so because various non-head-level (secondary) predicative elements can also form complex units together with a verb such that the verbal stem appearing as part of this unit can be nominalized, e.g., (3a) (the verb cannot be nominalized on its own: the presence of the secondary predicate is obligatory, see (3b)) (cf. Kiefer 2000a, 550–5). That the non-verbal constituent does not form a compound word together with the verb is evidenced by the fact that the two can be separated (see the version of (3a) with *is* 'also/too', as well as (3c) where negation intervenes between a preverb and a nominalized verb, both based on Google hit examples). Separability can also be demonstrated for a derived adjective, see (4).[4]

(3)   (a)   a   belső   jelentés nagy nyilvánosságra (is)   kerülése   előtt
             the internal report   large publicity-onto   also get-nomin-poss-3sg before
             'the internal report's getting publicized (too)'

      (b) *a belső jelentés kerülése előtt

      (c)   a   konfrontáció   el   nem kerülése
             the confrontation away (= prt) not   get-nomin-poss-3sg
             'the non-avoidance of confrontation'

(4)   a   lehetőséget   fel   nem ismerő   politikus
       the opportunity-acc up (= prt) not   recognize-adject politician
       'the politician not recognizing the opportunity'

Further, as Neeleman (1994, 291) points out, while the past and perfective participles of an irregular verb in (separable) particle–verb combinations (in Dutch) are formed irregularly (cf. (5a) and (5c)), this does not hold true of genuine compound verbs headed by the same verb (5b). A simple explanation for the difference (though not the one that Neeleman proposes) is that (separable) verbal particles in Dutch are added to the verb in syntax, rather than in the lexical component.[5]

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[4] See Szabolcsi (1994) for a description of nominal phrases like (3a). Note that both the nominalized verb in (3c) and the derived adjective in (4) may bear their own word-level stress. The same is obligatory in (3a), with a phrasal element preceding the nominalized form.

[5] That the particle and the verb do not form a syntactically atomic lexical compound is also corroborated by the fact that many (compositional) preverb + verb units can be broken up by syntactic movement in examples such as (i). In such

(5) (a) zuigen/ zoog/ gezogen
          suck   sucked sucked

     (b) stofzuigen/ stofzuigde/ gestofzuigd
          dust-suck   dust-sucked dust-sucked

     (c) uitzuigen/ uitzoog/   uitgezogen
          out-suck   out-sucked out-sucked

Note that an approach like Harley–Noyer (1998), Harley (2009) (developing the idea of category-neutral roots in syntax put forward by Marantz 1997), where derivational processes take place in syntax (including even root nominalization, due to a functional head n in place of the v head of verbal contexts, see Marantz 2001; 2007), the applicability of derivational processes does not preclude syntactic autonomy. In fact, on such an approach the issue is not separability, the default situation in syntax, but non-separability, which must ultimately be due to a general condition on lexical insertion. A condition to this effect may be that lexical insertion targets only head-level units, requiring each unit to be realized as a morphological word to be formed (by head-incorporation or "lowering" m-merger) in the syntax. On such an approach to nominalization, the immediately pre-verbal position of particles in nominalized forms is due to the same syntactic structure as that found in verbal contexts within vP (to be discussed in the next section), apart from the replacement of v by n.[6]

It is to be noted, finally, that its syntactic autonomy does not necessarily preclude all kinds of a fundamentally "lexicalist" analyses of the preverb. In fact, numerous treatments have been offered that adopt some version of the lexicalist account (see Ramchand–Svenonius 2002, 102 for references to lexicalist, or more broadly, "complex predicate" ap-

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predicate fronting constructions, which involve a doubling of the fronted predicate in situ, the verb may be fronted on its own, without its preverb.

(i) (Meg) szeretni meg szerettem   Marit, de ...
        perf   love-inf perf love-past-1sg M.-acc but

     'As for (taking a) liking, I did take a liking to Mary, but...'

[6] Assuming such a syntactic approach to nominalizations, the fact that nominalized particle-verbs lack viewpoint aspect supports the view that the immediately pre-verbal position of the particle cannot be a viewpoint aspectual position (contra É. Kiss 2002, and in line with É. Kiss 2006d;e). It also provides indirect evidence that the immediately pre-verbal position of the particle must be vP-internal in a clausal context.

proaches). For an account of separable verbal prefixes in general that allows syntactic movement to apply to parts of words (relinquishing the principle of Lexical Integrity in its strict sense), see Neeleman–Weerman (1993), as well as Ackema (1999). For another recent defense of a revised lexicalist approach to preverbs, with particular reference to Hungarian, see Ackerman–Webelhuth (1997). For an analysis based on the assumption that the same lexical element is sometimes realized syntactically and sometimes morphologically, see Ackema–Neeleman (2001) (cf. also fn. 4). An account of Hungarian preverbs in the same spirit is offered by Farkas and Sadock (1989), who build on the conception that a construction can have independent syntactic and morphological representations that do not need to match.

These approaches will not be discussed here in any detail, apart from occasional remarks where their immediate relevance warrants a comment. More generally, the discussion of Hungarian verbal particles cannot hope to be comprehensive within the confines of this study, even if it is restricted to the central issues emerging in the generative tradition. For a particularly lucid critical overview of results in the generative framework regarding Hungarian preverbs, see É. Kiss (2002, sect. 3.6); see also É. Kiss (2005; 2006a;d;e). For a discussion of the demarcation of the class of Hungarian preverbs, see Kiefer–Ladányi (2000), and for an overview in the descriptive tradition, see Balogh (2000) and references therein.

2. The category of Hungarian verbal particles

2.1. Verbal particles and word class

As pointed out above, verbal particles, especially locative verbal particles, have commonly been assimilated to adpositions in a number of languages, with which they are often, though not always, homophonous, and have been analyzed categorically as Ps (e.g., Emonds 1985; den Dikken 1995; Matushansky 2002; Svenonius 2007). Particles that apparently behave as phrases have accordingly been analyzed as "intransitive" adpositions (Klima 1965; Emonds 1985; see Horvath 1981 for this view of verbal particles in Hungarian): PPs that contain nothing beyond a P head.

In Hungarian, locative particles of the type illustrated in (6a), which contain a morpheme corresponding to an adverbial case suffix (see (6b)), have also been argued to be (complex elements headed by) adpositions (É. Kiss 2002, sect. 8.4), based on the broader assumption that adver-

bial case suffixes are syntactically postpositions in Hungarian (see Bartos 2000; É. Kiss 2002; see also Emonds 1985; for a similar approach to Lezgian adverbial suffixes, see van Riemsdijk–Huijbregts 2007).[7]

(6) (a) János **hoz**zá érintett   egy műszert   a   vezetékhez.
          John prt   touched-3sg an instrument-acc the wire-to
          'John touched an instrument to the wire.'

     (b) János**hoz**
          John-to
          'to John'

Some other verbal particles (e.g., *alá* 'to below', *keresztül* 'through') are identical with morphologically free postpositions in the language. Some such postpositions combine with a nominative noun phrase (e.g., *az asztal alá*, lit. the table-nom to.below 'to below the table'), while others select for an adverbial case form of their nominal complement (e.g., *az erdőn keresztül*, lit. the woods-on through 'through the woods'). A small number of further preverbs are also headed syntactically by a suffixal P element (i.e., an adverbial case suffix), taking a nominal complement (e.g., *agyon,* lit. brain-on 'over/too much').

Most remaining preverbs of present-day Hungarian can be considered adverbs (see É. Kiss 2002, sect. 3.6), given that they are morphologically identical with (locative) adverbs of the language, which, unlike adpositions, combine neither with a nominative noun phrase, nor with a nominal that bears a specific case they select for (e.g., *fel* 'up', *vissza* 'back', *haza* 'to.home', *ki* 'to.out(side)', *szét* 'apart').[8,9]

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[7] The functional parallel between case affixes and adpositions seems clear: loosely speaking, both mark "dependent nouns for the type of relationship they bear to their heads" (Blake 1994, 1, 7). Also significant is the fact that case suffixes often derive historically from postpositions across languages; this has been the case for adverbial suffixes in Hungarian too.

[8] The latter is illustrated in (i–ii) below. The relation between these adverbs and a following nominal marked by adverbial case is essentially appositive. Adverb particles can normally appear in the XP-*with*-NP construction (see Riemsdijk–Huijbregts 2007), i.e., in the absence of a verb, see (iii). For a historical development of these preverbs see Pais (1959).

(i) fel a   harmadik emeletre
     up the third   floor-onto
(ii) fel a   miniszterhez
     up the minister-to

2.2. The phrasal nature of verbal particles

As for the syntactic size of verbal particles appearing in the Hungarian clause, there is in fact overt morphological evidence that they have a phrasal status. To see this, it is instructive to first look at morphologically free postpositions. As pointed out by Marácz (1986), exactly those postpositions that take a caseless noun phrase as a complement (as in (7a)) bear person/number inflection when their complement is a personal pronoun (as in (7b)). The paradigm of inflections carried by such postpositions is identical to the paradigm of inflections suffixed to possessed nouns. The complement of the postposition can appear at a distance from the postposition, but only if it appears in dative case; the same is true of nominal possessive constructions (Szabolcsi 1983). The straightforward conclusion Marácz draws based on facts like these is that such PPs have a possessive structure, with the P bearing the role of the possessed head. Given that the suffixal locative particles illustrated in (6a) above bear the same paradigm of inflections agreeing with their pronominal complements (see (7c–d)), they too should have a possessive structure, with a suffixal adposition functioning as the possessed head (see É. Kiss 2002). That in their case the possessor noun phrase cannot appear at a distance from the possessed postposition is not unexpected, given the affixal nature of this class of postpositions.

(7) (a) Mari után
         Mary after

     (b) te   után-ad
         you after-2sg

     (c) Mari-ért
         Mary-for

     (d) te-ért-ed
         you-for-2sg

Pronominal possessors, which the possessed head (noun or adposition) agrees with for phi-features, can in general remain covert, being realized

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(iii) Le   az árulókkal!
       down the traitors-with
       'Down with the traitors!'

[9] See Kádár (2009) for a suggestion that many of these elements, traditionally considered adverbs, are syntactically PPs.

by a silent *pro* (the default option unless the possessed phrase is a syntactic topic or focus). It can be inferred that the "incorporated" locative particles at hand also contain a *pro* possessor, as well as a functional head associated with possessive person/number-agreement; whence they must be phrasal. Thus, in distinction to "intransitive" adpositions, exemplified by English locative particles, which are bare Ps projecting a PP that may alternate with lexical locative PPs (see (8) below), the locative particle in Hungarian is a PP with a full-fledged internal structure, containing a proper (pronominal) argument.[10]

(8) (a)   John walked through.

    (b)   John walked through the room.

As expected, locative particles, and indeed all verbal particles in Hungarian, may undergo XP-movement. Most importantly, they can be fronted to the left of a pre-verbal particle *is* 'also/too' (9a), they can be contrastively topicalized (9b), as well as focused on their own. They can raise across a sequence of superordinate verbal heads (9c) as well as across a complementizer of a subjunctive clause (9d) (cf. É. Kiss 1994, 59), to the VM position of a superordinate verb (a movement operation termed VM "climbing"). This has also been taken as an indication that they are phrasal (see Farkas–Sadock 1989; Brody 2000; Koopman–Szabolcsi 2000; see also den Dikken 2004; Williams 2004 and others).

(9) (a)   Azt   ígérte,   hogy el jön,   és **el** is jött.
           that-acc promised-3sg that prt come-3sg and prt also came-3sg
           'She'd promised to come along, and she did (come along).'

    (b)   Le szidom Jánost,   de [**el**]$_{\text{CTop}}$ nem küldöm.
           prt tell-1sg John-acc but prt   not send-1sg
           'I'll tell John off, but I won't send him away.'

    (c)   **Fel** fogja   Mari   akarni olvasni a   verset.
           prt will-3sg Mary-nom want-inf read-inf the poem-acc
           'Mary will want to read out the poem.'

    (d)   **Vissza** szeretné,   hogy adjam   a   könyvet.
           back   like-cond-3sg that give-subj-1sg the book-acc
           'She'd like me to return the book.'

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[10] It has been suggested that even in the apparently intransitive uses of such Ps, they take a covert (pronominal) Ground argument (e.g., Svenonius 2007). This view is corroborated by the presence of person/number agreement inflection on the type of Ps in Hungarian discussed here.

Further evidence that particles in Hungarian are phrases, rather than merely head-level projections undergoing syntactic incorporation into the verb à la Baker (1988) (or being generated at the lexical level as part of a complex verbal compound head), comes from the syntax of **non**-neutral clauses, i.e., clauses that contain a preverbal "operator," such as negation, focus or a *wh*-phrase (cf. fn. 2). In such clauses the (finite) verb must immediately follow the "operator" itself, as a result of which the particle will appear postverbally, where it can be relatively freely separated from the preceding verb. The situation is schematized in (10):

(10) OP V_{fin} ... PRT ...

The placement of the verb in such clauses has been analyzed in terms of head movement of the verb to the head of some functional projection that houses the operator in its specifier (Brody 1990; Puskás 2000; though see É. Kiss (2002) and (2005; 2006c) for two alternatives). On mainstream assumptions this entails that particles do not undergo head-incorporation into the verb. For if the particle did incorporate into the verb by head-incorporation at some point of the derivation, forming the complex head [PRT V] (11a–b), then this would imply that the verbal host head would have to excorporate from the complex verbal head (raising on its own to the functional head position right-adjacent to the clausal operator OP), as in (8c). Assuming that syntactic excorporation is generally unavailable (e.g., Baker 1988), a head-incorporation analysis of the PRT V sequence of neutral clauses is difficult to uphold.

(11) (a) ... V ... PRT...

    (b) ... [PRT V]... —

    (c) OP V... [PRT —]... —

Such considerations—from applicability of (A-bar and long) XP-movement to the particle itself, and from head-raising of the verb away from the particle—strongly support the view that verbal particles in Hungarian are phrasal categories. Similar arguments can, and have been, made for the case of Germanic separable verbal "prefixes" as well as English-type verbal particles (see Zeller 2001 for a variety of such arguments applied to German, and for references). In OV Germanic, typically, the main verb undergoes movement to a V2 position, stranding the particle in a clause-final position, as in the German example below:

(12) Peter trinkt   sein Bier   aus.
      Peter drink-3sg his   beer-acc out
      'Peter drinks up his beer.'

A last argument to be mentioned here comes from an observation regarding the set of elements that alternate with verbal particles in the immediately pre-verbal linear position of a neutral clause. The set of elements that are in complementary distribution in such a surface position include verbal particles, adverbial phrases, determinerless (case-marked) nominal phrases, as well as resultative and other secondary predicate phrases, all of which (apart from particles) can contain modifiers, i.e., can have a complex, phrasal structure (see É. Kiss 2002 and references cited there).[11] The pre-verbal complementary distribution of all these elements (commonly referred to collectively as "verbal modifiers", VM for short) has been generally taken to suggest that they occupy one and the same structural position in the phrase marker (which has come to be called the "VM position").[12] In view of the phrasal status of VMs other than verbal particles, the VM position must be a phrasal position; hence verbal particles too should (be able to) have a phrasal status.[13]

Note, finally, that strictly speaking the foregoing evidence pointing to the phrasal status of Hungarian preverbs only pertains to verbal (i.e., clausal) contexts, and no inference can be made regarding their occurrences in other contexts. For, the same lexical element can be realized both at the level of syntax and at the level of morphology (cf., e.g., Ackema–Neeleman 2001 for a treatment of verbal particles exploiting this duality).

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[11] Nominals in this position also bear case suffixes. Assuming that case is a property of noun phrases, rather than that of (head-level) nominal lexical items, this further corroborates the phrasal status of the position.

[12] This is by no means entailed by the surface complementary distribution; however, in lack of evidence to the contrary, assigning all VMs to the same position is the simplest alternative.

Whether "operators" like focus or *wh*-phrases, which are known to be in complementary distribution with VMs in finite clauses, occupy the same syntactic position is a matter of debate (disregarding "complex predicate" analyses, on which VM is generated as part of a complex verbal predicate). See, for instance, É. Kiss (1987; 1994; 2005) for the view that they do (cf. also É. Kiss 2002 for a slightly different implementation of this approach), and Piñón (1995) and É. Kiss (2006a; 2008a) for the view that they do not.

[13] See Svenonius (2004) for tentative arguments that Slavic prefixes too are phrasal, and they surface in an immediately pre-verbal position by XP-movement.

3. The verbal particle and the verb are outside *v*P

3.1. Evidence for a *v*P-external position

While the phrasal status of particles seems amply motivated, their syntactic position in a neutral clause is less clear. Here I merely wish to point at some evidence—often under-acknowledged in earlier literature (e.g., Brody 1990; 1995; É. Kiss 1994; Csirmaz 2004)—that both the particle (more generally, the VM) and the verb are outside of the verb phrase at the surface.

This is what the pattern exhibited by VP-ellipsis in the language suggests. VP-ellipsis in a neutral clause deletes elements to the right of the verb, but strands the VM and the V itself. The sentence in (13) could be a continuation of example (6a) above. Similarly, in a sentence where the bracketed string in (13) is overt, it can undergo coordination, as well as Right Node Raising. (14) illustrates the latter in a sentence where the affected constituent contains an object, an agentive subject and an adverb of frequency.[14]

(13) Mari is   hozzá érintett   [egy műszert   (a   vezetékhez)].
     Mary too prt   touched-3sg an instrument-acc the wire-to
     'Mary did too.'

(14) Neked   el   küldi,   nekem pedig   fel hozza
     you.dat prt send-3sg I.dat in.contrast prt bring-3sg
     [mindig valaki   a   leveleket a   portáról].
     always somebody the letters-acc the reception.desk-from
     'Someone always sends the letters to you from the reception desk, whereas someone always brings them up to me.'

We then have evidence that both the verb and the VM element, which originate inside the *v*P, undergo syntactic movement and appear in a derived position at surface structure.[15] The fact that the constituent undergoing Right Node Raising, coordination or deletion may contain

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[14] External argument subjects are argued to be generated in [Spec,*v*P] in Hungarian by Surányi (2006a;c) and by É. Kiss (2008b).

[15] Strictly speaking, VM climbing to a superordinate clause does not qualify as evidence that the VM position is a derived position in contexts without VM climbing, i.e., when the VM element is left-adjacent to the local verb (pace É. Kiss 2002, sect. 3.6).

objects, (both agentive and non-agentive) subjects, all sorts of oblique arguments as well as all kinds of adjuncts suggests that the landing site of the movement of the VM (the so-called "VM position") and of the verb must (minimally) be outside the vP.[16] We may add that the assumption that Hungarian has a right-branching clause and verb phrase structure (the predominant view of the language) in itself implicates movement of the VM elements base-generated to the right of the verb to its left.

3.2. The adjacency of the particle and the verb

If both the verb and the preverb are extracted from the vP in a neutral clause, the question arises as to why they surface in strictly string-adjacent positions, and why in a PRT–V order. These are the two issues addressed in this subsection.

Before considering the most prominent types of treatments these questions have received in the literature, let us add that not only are the particle and the verb adjacent, as is widely recognized, in a neutral particle–verb order the particle and the verb tend to form a single phonological word, containing only one word stress, viz. on the particle, since word-level stress in Hungarian is normally phonological word initial (for a qualification of this generalization, see below).

3.2.1. "Reanalysis"-based accounts

Granting that the particle and the verb do not form a lexical compound (as argued in section **1** above), one theoretical possibility that could explain the strict adjacency of the particle and the verb (in neutral clauses), as well as the fact that the two form a phonological word, is to assume that the verb and the particle come together (via head-incorporation, or some other syntactic mechanism) to form a complex head within the syntax, which syntactic head would be interpreted on the PF branch as one morphological word. However, as we saw in section **2** above, complex head formation in the syntax is precluded (whether the host is taken to be the verb, or the particle), since **both** the verb and the particle would

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[16] The remnant vP, vacated by the verb, cannot undergo syntactic topicalization or focusing. This is not exceptional behavior: such remnant vP fronting is ungrammatical also in languages, such as German or Hebrew, where partial vP-fronting is otherwise allowed: the head of a topicalized/focused (verbal) phrase must generally be present overtly within the landing site position (see Landau 2007).

have to be able to "excorporate" from such a complex head to derive
certain word orders. Assuming syntactic excorporation (at least of the
host, see above) to be generally unavailable, the argument goes, complex
head formation cannot be claimed to take place in sentences containing
a particle.

A weaker position is, nevertheless, possible to maintain. Namely, it
is not inconsistent with those word order patterns that would have to
involve syntactic excorporation to propose that complex head-formation
takes place only in neutral clauses, or more precisely, in clauses where
the particle ends up immediately left-adjacent to the verb at surface
structure. Indeed, such a proposal has been put forward by É. Kiss (2002,
Ch. 3), where it is suggested that the particle undergoes movement as a
phrase to a specifier position, where the right-adjacent verb merges "into"
it from the right. Evidence for this "reanalysis" into a single complex
head comes from syntactic co-ordination. É. Kiss (*ibid.*) observes that
the particle and the immediately following verb cannot be separated in
a coordination of conjuncts that include the verb, but not the particle:

(15) (a) János [fel [hívta Marit]]   és   [fel [olvasta neki   a   versét]].
          John   up called Mary-acc and up read   she-dat the poem.his-acc
          'John phoned Mary and read his poem out to her.'

     (b) *János [fel [hívta Marit] és [olvasta neki a versét]].

Assuming the "reanalysis" operation to involve syntactic head movement
(of the verb into the particle), even this weaker position appears to be
challenged by data such as (16) (on the common assumption that ellip-
sis results from the PF-deletion of the phonological content of syntactic
structure). B's response in (16) involves ellipsis, deleting the verb but
not the particle.[17] But if the verb head-moves to the particle in syntax,
the two must form a complex head, and this should not be possible.

(16) A: El jött   János?
          prt came-3sg John-nom
          'Did John come along?'

      B: El.
          prt
          'He did.'

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[17] Ellipsis in (16) involves the deletion of a constituent that contains the verb. The
availability of the pattern is prima facie evidence that the surface VM position
is structurally higher than the surface position of the verb.

Despite appearances, however, the deletion of the verb in (16B) does not in fact contradict a complex syntactic head analysis of the neutral PRT V order. This is because head-movement has been independently argued to be sensitive to phrasal ellipsis in a special way. In particular, Lasnik (1999) argues that the deletion of the main verb in pseudogapping in English, and the deletion of the auxiliary verb in matrix sluicing ($=$ (17)) are due to the phrasal deletion operations of VP-ellipsis and TP-deletion, respectively. Lasnik adopts a split-verb phrase analysis in which both the verb and the object raises out of VP at surface structure in English, resulting in [V [Obj [$_{VP}$ t_V t_{Obj}]]]. It is argued that the verb is removed in pseudogapping because it is contained in the VP that gets silenced. Verb movement to some head positon F is overt because it satisfies some PF-uninterpretable property of the verb that would reach PF if V did not get overtly moved to F. This movement does not have to be overt if the verb is elided as part of VP-ellipsis, given that in such a case the verb bearing some PF-uninterpretable property will not reach PF anyway. Since the relevant PF-relevant trigger is eliminated independently, due to computational economy overt verb movement cannot take place. Only head movement, but not phrasal movement (here: of the object) is sensitive in this way to the deletion of a larger containing phrase (see Boeckx–Stjepanović 2001 for a possible explanation). Sluicing deletes a TP that contains the **un**inverted auxiliary in an analogous fashion, bleeding head-movement of the auxiliary out of TP (while not bleeding the phrasal movement of the *wh*-expression):

(17) A: John will buy something.

   B: What?/*What will?

(18) [$_{CP}$ What C [$_{TP}$ ⋯ [$_T$ will] [$_{vP}$ ⋯]]]   = (17B)

In other words, head movement does not feed constituent deletion operations; rather, head movement is bled by phrasal deletion operations. Since on a head-incorporation implementation of the "reanalysis" proposed by É. Kiss (2002) the example in (16) is structurally analogous to English pseudogapping and matrix sluicing, the same account can be extended to it. A head-incorporation account of the particle–verb relation (in a particle–verb surface order) may thus be maintained in the face of (16).

   A syntactic implementation of "reanalysis" in terms of head movement faces theoretical difficulties, however. One issue that arises concerns the direction of the attachment of the raised verb, which

apparently attaches to the particle from the right. However, if Kayne's (1994) restrictive theory, adapted to the minimalist model by Chomsky (1995), is correct, movement can only attach the moved element to the left side of the host category, but not to its right.[18] A further complication arises from the fact that VM elements can have a complex internal structure, having a phrasal status (see the end of section **2** for a list of VM types). As coordination below such complex VM elements is just as unacceptable as (15b), movement of the verb to the right edge of the adjacent VM element should take place in cases involving clearly phrasal VMs as well.

(19) *Miután a   szoba közepére [tette   a   fotelt]   és
     after   the room middle-to put-past-3sg the armchair-acc and
     [állította   a   lámpát], hazament.
      stand-caus-past-3sg the lamp-acc home-went-3sg
     'After he placed the armchair, and set the lamp, in the middle of the room, he went home.'

On a mainstream theory of syntactic movement, however, heads are able to adjoin only to heads, and phrases can adjoin only to phrases. Head movement to a phrase, however, is ruled out. Another issue facing the implementation of "reanalysis" in terms of syntactic movement of the verb is that the putative movement that string-vacuously adjoins the verb to the VM element does not observe the C-command Condition on movement (on a restrictive definition of c-command in terms of "first (branching) node up"), which is reduced to the more general Extension Condition (or No Tampering Condition) in recent minimalist models (Chomsky 1995; 2005).

Finally, a syntactic "reanalysis" in terms of movement of the verb would be countercyclic. For, if it takes place at the stage of the derivation where the particle is Merged in its pre-verbal position outside *v*P, then any later separation of the particle and the verb should become impossible. One of the two conceivable ways to allow for the particle and the verb not to get "reanalyzed" into a unit is, first, to assume that the trigger of the "reanalysis" is only active in the neutral position of the VM and the

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[18] In reality, Kayne (1994) argues that there is no directionality involved in phrase structure: linear precedence relations are mapped by a correspondence condition (his Linear Correspondence Axiom, LCA) from (non-directional) hierarchical structure. It follows from the LCA that a moved element is linearly ordered to precede its host.

V outside vP, and second, to make sure that the particle is prevented in precisely those sentences where they do not end up "reanalyzed" into a single complex from ever coming to occupy the immediately pre-verbal position outside the vP.[19] While that might be technically doable, it does not seem a particularly explanatory path to take. The other option to prevent "reanalysis" is to assume that the operation itself is optional. In that case those sentences where "reanalysis" empirically seems not to take place are no longer in need of explanation. However, the account of (15) that originally served as the very motivation of "reanalysis" itself would effectively be lost.

A less problematic implementation of "reanalysis" in terms of head-incorporation is to propose that it is the particle that comes to occupy its immediately pre-verbal surface position by head-incorporation into the verb. In 'particle climbing' contexts like (9c), where the particle is raised to a higher clause as a phrase, we need to assume that it is only the last movement step of the particle, namely the one that brings it to the immediately pre-verbal position, that involves head-movement. That type of derivation is known from the literature on (pronominal) clitic climbing (Sportiche 1996).[20] This derivation conforms to the Kaynean view that syntactic head-incorporation always takes the incorporee to the left of its host (Kayne 1994).

Incorporation of the particle by head-movement to the verb cannot extend to all VM elements. Specifically, the operation is clearly unavailable to any phrasal VMs. Phrasal VM elements nevertheless exhibit the same adjacency with the verb as simplex VMs such as preverbs. Many phrasal VM elements can also form one phonological word together with the verb they precede. Therefore it can be concluded that head-incorporation of particles cannot serve as an explanation of either the adjacency effect or the merger into a single phonological word.

Unfortunately, an implementation of "reanalysis" according to which it is the particle that incorporates into the verb does not fully cover the ungrammaticality of the coordination pattern illustrated in (15b) and (19). In particular, as (19) demonstrates, coordination below syntacti-

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[19] Preventing the verb from passing through the relevant head position outside vP that is right-adjacent to VM in a neutral clause is impossible, given the strict locality of cyclic head movement.

[20] Brody (2000) explicitly likens VMs to Romance (pronominal) clitics, based on a syntactic analogy. Clitics, however, are by definition stressless, and it is VMs that bear word-level stress, while the verb gets phonologically encliticized to them.

cally complex (i.e., unambiguously phrasal) VM elements is ill-formed in the same way as (15b). Due to their **phrasal** status, however, complex VM elements cannot be claimed to undergo **head**-incorporation into the verb.

If the incorporation of the preverb into the verb by head-movement is empirically required to account neither for the adjacency effect, nor for merger into a single phonological word, nor for the unacceptability of the coordination of the type illustrated in (15b), what justification could there be to motivate such an analysis? In other words, in what ways **other than these** do particle–verb combinations behave as a single head-level element in syntax? It is easy to come by evidence that (a constituent exclusively containing) a particle–verb unit can undergo phrasal movement. For instance, they can be fronted both to the focus (20) and to the (contrastive) topic position (21).

(20) Nem [MEG GYŐZNI]   fogom   akarni   Marit
     not   prt   convince-inf will-1sg want-inf M.-acc
     (hanem csak megkérdezni a   véleményét).
      but   only prt-ask-inf   the opinion.her-acc
     'I won't be wanting to CONVINCE Mary (but only to ask her opinion).'

(21) [Meg győzni]   JÁNOS fogja   akarni   Marit.
      prt   convince-inf J.-nom   will-3sg want-inf M.-acc
     'As for convincing Mary, it is John who will want to convince her.'

It is less straightforward to argue that a particle–verb complex can undergo syntactic movement as a head. Of course, **if** it is assumed that movement to the immediately preverbal VM slot involves head-incorporation, **then** roll-up structures such as (22) (see Koopman–Szabolcsi 2000) exemplify head movement of a particle–verb unit. Recall that a head-incorporation analysis of movements to the VM position cannot be generalized to all cases; in particular, it cannot apply to unambiguously phrasal VM elements. Then, we expect that VM–verb units involving a phrasal VM element either cannot undergo roll-up movement, or if they can, then roll-up—at least—**can** be XP-movement. (23) is minimally different from (22): it involves a noun phrase as a VM. There is no detectable difference between the two examples either in terms of acceptability, or in terms of focus structure.

(22) Mari   nem szokott   [híradót nézni]   akarni.
     M.-nom not used.to-3sg.indef news-acc watch-inf want-inf
     'Mary didn't use to want to watch the news.'

(23) Mari   nem szokta   [a híradót nézni]   akarni.
     M.-nom not used.to-3sg.def the news-acc watch-inf want-inf

Csirmaz (2004) assumes that roll-up is not available with unambiguously
phrasal VMs, based on a perceived contrast between (24a) and (24b)
below ((24b) is judged by her to be unacceptable; see Koopman–Szabolcsi
(2000, 21: (19b)) for a similar example). However, phrasal VMs do not
generally resist taking part in roll-up, as examples (25)–(27) illustrate.

(24) (a) Nem fogok   újságot   olvasni akarni.
          not   will-1sg newpaper-acc read-inf want-inf
          'I won't want to read a newspaper/newspapers.'

     (b) Nem fogok   ósdi képes   magazinokat olvasni akarni.
          not   will-1sg old illustrated magazines-acc read-inf want-inf
          'I won't want to read old illustrated magazines.'

(25) Jó   ötlet ma   magyar   állampapírba   fektetni akarni?
     good idea today Hungarian state-paper-into invest-inf want-inf
     'Is it a good idea to want to invest in Hungarian government securities today?'

(26) Hetven éves   kor fölött érdemes még idegen nyelveken   tanulni próbálni?
     seventy year-adj age above worth   still foreign languages-on learn-inf try-inf
     'Is it still worth trying to learn foreign languages over the age of seventy?'

(27) Általában nem szeretem a   gyereket a   haverjainál   aludni   engedni.
     in.general not like-1sg the kid-acc the mate-poss-3pl-at sleep-inf let-inf
     'Normally I don't like to let the kid sleep at his mates' place.'

The empirical generalization seems to be that only those VM–V units are
able to undergo movement in roll-up constructions to the VM position
of a higher verb that form a 'natural predicate' either by virtue of being
institutionalized, or by virtue of being established as a single complex
semantic predicate by the context. In fact, in a context of a waiting room
at a doctor's office, the activity of reading outdated pulp magazines may
be a natural predicate. In such a context, (24b) may improve to full
acceptability. The same applies, mutatis mutandis, to Koopman and
Szabolcsi's example alluded to above. They claim, incorrectly, I believe,
that elements functioning as a VM other than preverbs and infinitival
verbs are excluded from roll-up. The tendency that it is relatively easy for
VM–V sequences with VM = preverb, and to a lesser extent, with VM =
infinitival verb, to undergo raising to a higher VM position in roll-up

may stem from the fact that [VM V2] itself in a rolled-up [[VM V2] V1] complex is most likely to be able to function as a 'natural predicate' if VM is a preverb or an infinitival verb. Nevertheless, they can be just as degraded without an appropriate context as (24b) is without one:

(28) ?Hetven éves   kor fölött érdemes még [meg tanulni   próbálni]
     seventy year-adj age above worth   still prt learn-inf try-inf
     idegen nyelveken?
     foreign languages-on
     '(26)'

(29) ??Milyen gyakran szoktál   írni   tanulni járni az iskolába?
      how   often   used.to-2sg write-inf learn-inf go-inf the school-to
      'How often do you usually go to school to learn how to write?'

I suggest that the requirement to form a "natural predicate" reduces to the mode of composition available (exclusively) in the VM position (see Farkas–de Swart 2003), namely, semantic incorporation. A prominent view of one subclass of VMs, namely, bare nominals selected by the verb that they become a VM of, is that they are semantically incorporated into the verb. To the extent that this generalizes to all VM–V complexes formed by a verb and a VM it selects (including particle–verb, lexical locative argument–verb, and verb–verb combinations, among others), all such VM–V expressions involve semantic incorporation yielding a single complex semantic predicate (see Koster 1994 for an analogous generalization for Dutch).

It can be concluded that roll-up may be phrasal movement.[21] Hence,

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[21] Both É. Kiss (2004) and Brody (2004) assume that roll-up involving a sequence of infinitival verbs and a preverb implicates a head-movement type dependency. This is regular head-incorporation for É. Kiss (*ibid.*), while it corresponds to membership in a single Morphological Word (MW) in Brody (*ibid.*), who bases his analysis on a Mirror Theoretic phrase structure representation (Brody 2000). Brody's (2004) account in fact does allow phrasal VMs to take part in a roll-up construction, although he does not make note of this option.

First, he takes a head-dependency (a MW) to be spelled out in a reverse (mirror) order, in the position of its highest member. Consider a sequence of infinitival verbs represented in (i) (simplified from Brody 2004, 168), which is embedded under a finite verb, and whose lowest member selects a simplex VM element (i.e., V_{fin} ... V1 V2 V3 VM). The PF order will correspond to a right-to-left order starting from the VM (i.e., VM V3 V2 V1), which the whole PF-string spelled out in the position of the highest verb *akarni* 'to want'. Second, Brody assumes that a VM must be supported by a verb on its right (=his (39)). An

examples like (22) do not constitute positive evidence that particle–verb units are (or can be) complex syntactic heads. Taken together with the conclusions reached above in this subsection, there is apparently no empirical gain that would motivate the addition of the syntactic option of head-incorporation of the particle into the verb to whatever analysis is provided for immediately pre-verbal, unambiguously phrasal VM elements.

An alternative approach that avoids the complications reviewed above is to take "reanalysis" to be a PF operation, rather than a syntactic one. Given that the verb itself gets to its pre-"reanalysis" syntactic position by head movement out of the vP, the account of (16) along the lines proposed by Lasnik remains applicable. This is because the constituent ellipsis containing the base position of the verb preempts the verb movement transformation that brings the verb into its pre-"reanalysis" syntactic location.

The relevant PF process must be phonological rather than morphological, as many of the elements in the VM position other than the particle are fully inflected words and phrasal constituents (see section **2** above). Even though the putative PF-merger is of a phonological nature, its output needs to be fed back to syntax, serving as an input to further syntactic operations. This is so because the PRT–V unit is able to undergo movement to a higher infinitival clause, as in (30) below.

(30) Nem fogom   fel hívni   akarni   Marit.
     not   will-1sg up call-inf want-inf M.-acc
     'I won't be wanting to phone Mary.'

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alternative way of satisfying this requirement, and the only possibility available when the VM is phrasal, is to place the VM in the specifier of a verb. Unless the VM undergoes movement independently, this verb will be the one that the VM is selected by, i.e., the lowest verb in the sequence (*menni* 'to go' in (i)).

(i) akarni   kezdeni   menni haza
    want-inf begin-inf go-inf home
    'to want to begin to go home'

All that needs to be added to this picture is that when the VM in (i) is in the specifier of that lowest verb, the above requirement that a VM must be supported by a verb to its right forces the whole MW of the infinitival sequence to be spelled out in the position of the verb whose specifier the VM occupies. As specifiers precede their host head by assumption, we get an order VM V3 V2 V1, which is the same "roll-up" order as derived above for (i). The roll-up order can therefore be derived in Brody's (2004) model.

On the syntactic head-incorporation account of the PRT–V relation criticized above, the explanation for (15b) should be that "reanalysis" either only involves movement of the verb of the first conjunct "into" the particle, violating the coordinate structure island, or it involves the movement of neither of the two verbs, which must then yield ungrammaticality because the property requiring head-incorporation to take place remains unsatisfied. On a PF-merger implementation, the coordinate structure island boundary may or may not be an obstacle for the merger of the verb into the particle, depending on assumptions about the (cyclic nature of the) syntax/PF interface. At any rate, one problem with (15b) on the PF-account should be that the verb of the second conjunct definitely cannot meet the requirement that it should be phonologically merged with the particle.

Whatever the identity of the PF-property that remains unsatisfied in (15b) is (and whether it is a requirement of the verb or of the particle), one difficulty facing the account is that the same PF-requirement may apparently remain unfulfilled in all contexts where the particle does not immediately precede the verb. There exist syntactic contexts where the verb clearly cannot form a phonological word together with any other element (for instance, verb-initial neutral clauses), and also ones where the particle forms a phonological word on its own (including (16B), (9b) and word orders where the particle is postverbal but not right-adjacent to the verb).

A further complication for a PF-merger approach is that the formation of a single phonological word does not seem to be obligatory in some cases (this is true of particles (31a) and other VM elements (31b) alike).[22] The lack of the formation of a phonological word in (31) suggests that the purported PF-"reanalysis" operation does not take place in these examples.[23]

(31) (a) [OK] ˈVissza ˈkívánják adni   a   kölcsönt.
              back   wish-3pl give-inf the loan-acc
              'They wish to give back the loan.'

[22] In a stylistically marked stress pattern (used for emphasis, including reiteration of a previously uttered sentence, careful explanation, etc.), each substantive word is stressed. Such a stress pattern reveals where the option of stressing VM and V separately is available, and where it is not; see (ii–iii).

(i)   Érted?   ˈNem ˈjövök   ˈvissza.
       understand-2sg not   come-1sg back
       'Do you understand? I'm not coming back.'

(b) ^{OK} ˈDarabokra ˈszerette   volna szedni a számítógépet.
        pieces-to   like-past-3sg cond take-inf the computer-acc
        'He wanted to take the computer to pieces.'

(c) ^{OK} Mikor ˈszakorvoshoz ˈirányított   a   háziorvosod, . . .
        when specialist-to refer-past-3sg the GP-poss-2sg-nom
        'When you were referred to a specialist by your GP, . . . '

The fact that phonological word formation is not always obligatory in
PRT–V (or more generally, VM–V) sequences suggests that the general
strict adjacency of the particle and the verb in those sequences cannot be
due to PF-"reanalysis" into a single phonological word. As PRT and V are
strictly adjacent independently of whether phonological word formation
by PF-"reanalysis" takes place, it can be concluded that the adjacency
effect cannot be reduced to that operation.[24] Furthermore, coordination
below the particle is ill-formed also in examples where PF-"reanalysis"
does not take place (32a). A PRT–V string that does not form a single
phonological word is nonetheless able to undergo movement into a higher
VM position (32b,c). Therefore, it seems that PF-"reanalysis" cannot be
the process that turns the syntactically independent elements PRT and
V into a single complex that can undergo syntactic movement as a unit.

(32) (a)   * ˈVissza ˈkívánta   adni   a kölcsönt és vinni a könyvet.
            back   wish-past-3sg give-inf the loan-acc and take-inf the book-acc
            'He wished to give back the loan and take back the book.'

(ii) ˈEl ˈkell ˈmennem.
        prt must go-inf-1sg
        'I must leave.'

(iii) * ˈEl ˈmegyek.
        prt go-1sg
        'I'm leaving.'

[23] The same applies to an implementation of "reanalysis" in terms of syntactic
head-incorporation, which, by definition, should also yield a single phonological word.

[24] Given that the formation of a single phonological word is not obligatory in many
cases, and that its conditions are not well studied, I will not attempt to provide
an explanation for its application. What is relevant for present purposes is only
that the adjacency effect cannot be reduced to phonological word formation.
Note that it is not being claimed here that in (31) above and in (32) below each
ˈ symbol corresponds to the same degree of prominence, but rather that each
element marked by ˈ can bear at least word-level stress.

(b) ᴼᴷNem volt hiábavaló ˈkapura ˈküldeni ˈtudni   ˈakarni a labdát.
       Not was in.vain   goal-to send-inf be.able-inf want-inf the ball-acc
       'It wasn't in vain to be wanting to be able to shoot the ball at the goal.'

(c) ᴼᴷIlyen körülmények között ki   fogja ˈkülföldre ˈküldeni ˈtudni
       such circustances among who will   abroad-to send-inf be.able-inf
       ˈakarni a diákját?
       want-inf the student.his-acc
       'Under such circumstances, who would want to be able to send one's
       student abroad?'

The above arguments undermine the "reanalysis"-based account of the
unavailability of coordination illustrated in (15b), whether "reanalysis"
is taken to be a syntactic or a PF operation.

Importantly, coordination yields the same result as in (15b) even in
cases where the particle is not in the immediately pre-verbal position.
This holds both of sentences where the particle is pre-verbal but further
to the left, as in (33a), and of examples where it is in a post-verbal
position, as in (33b–c).

(33) (a) *Vissza is [adta   a kölcsönt] és [vitte   a könyvet].
             back   too gave-3sg the loan-acc and took-3sg the book-acc
             'He did give back the loan and take back the book.'

     (b) *Tedd   [a játékot le]   és [a könyvet vissza]!
             take-imp-2sg the toy-acc down and the book-acc back
             'Put down the toy and put back the book!'

     (c) *Csak ÉN   fogadtam [a tanácsát   meg] és [az ajánlatot el].
             only I-nom took-1sg   the advice-his-acc prt   and the offer-acc away
             'Only I followed his advice and accepted the offer.'

The relevant shared property of (15b) and of the examples in (33) is that
the particle and the verb are consigned to different syntactic domains:
while one is inside, the other is outside the coordination.

Such a syntactic setup also yields unacceptability with particle verbs
in English, as illustrated in (34) below. Not only is it particles that cannot
be separated from their verbs in coordination: "light" verbs and their
semantically incorporated arguments are restricted in much the same
way, see (35). Finally, an element that is part of an idiomatic expression
cannot fall outside coordination involving the rest of the respective full
idiomatic units, as illustrated in (36).

(34) (a) *He took [his hat off] and [the pizza away].

   (b) I took [Mary to the movies] and [Bill to the zoo].

   (c) *Off he will [go ___ to Piglet] and [trot ___ to Owl two minutes later].

   (d) No one will I [introduce ___ to you] and [invite ___ to your place two minutes later].

(35) (a) *take [a nap in the garden] and [a rest in the living room]

   (b) *take [advantage of John] and [a photo of Bill]

   (c) *have [a nice chat with Mary] or [a bath at home alone]

(36) (a) *The cat got [out of the bag] and [John's tongue].

   (b) *The situation got [to John] and [under his skin].

Apparently, parts of idioms and complex semantic predicates cannot be factored into distinct syntactic domains in coordination. These separate domains correspond to distinct phases in current minimalist models that define phasehood contextually as a domain that is complete for interpretation, i.e., is ready to be Transferred to the semantic and phonological interface components. Indeed, Svenonius (2005) argues extensively that idioms must be contained in a single phase. The same apparently extends to complex semantic predicates formed by a verb and the VM it selects. The unacceptability of the coordination in (15b) falls under this generalization.

3.2.2. An account based on the specifier–head configuration

We have seen that the assumption of some kind of "reanalysis" faces complications without leading to a gain on the empirical side. Not positing such an operation, however, still leaves us without an account of the order and the adjacency of the particle (or more generally, VM) and the verb, both surfacing outside the vP. Below I briefly examine an apparently similar pattern exhibited by the fronted focus and the finite verb, and argue that an account that has been suggested for them should be adapted to cover the case of the particle–verb surface order too.

    An order and an adjacency effect analogous to that observed for the neutral particle–verb sequence also holds of a fronted identificational focus expression and the finite verb. The string to the right of the inverted verb forms a constituent, as evidenced by facts of deletion and coordination; e.g., (37a). Ellipsis can delete the whole string to the right of focus, analogously to (16B) above (see (37b), an elliptical answer given to the

question in (37a)). In the same manner as for (16B), this is predicted by Lasnik's (1999) account, according to which deletion of a clausal constituent bleeds head movement from that constituent to a position outside it. Coordination below the focus is well-formed (37c) (see É. Kiss 2002). This is also expected, given that here the verb and the VM element it selects are not relegated into to syntactic domains (phases), unlike in (15b).

(37) (a) JÁNOSNAK adott [Mari egy könyvet] és [Éva egy CD-t]?
  J.-dat gave-3sg M.-nom a book-acc and E.-nom a CD-acc
  'Is it John who Mary gave a book and Eve gave a CD?'

 (b) JÁNOSNAK.
  J.-dat
  'Yes, it is.'

 (c) János [MARI levelét [[tépte szét tegnap este] és
  John Mary letter-poss-acc tore-3sg up(prt) yesterday night and
  [rakta össze ma reggel.]]]
  pieced-3sg together(prt) today morning
  'As for John, it was Mary's letter that he tore up last night and pieced together this morning.' (from É. Kiss 2002, Ch. 4)

Brody (1990; 1995) proposed to analyze the construction of Hungarian focus movement in terms of a dedicated functional projection FocP, whose specifier is occupied by the fronted focus, and whose head is filled by the inverted verb (an analysis that was subsequently widely adopted, see Puskás (2000) and references therein).[25] On such an account, both

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[25] That account is discarded in É. Kiss (2002) in large part on the basis of (37c), on the specific assumption of Chomsky's (1995) Bare Phrase Structure approach that intermediate projections (here: Foc′), once created, are inaccessible to syntactic computation. Chomsky's reasoning is to reduce this to the fact that on a contextual definition of projection levels, intermediate projections are neither maximal nor minimal. The inaccessibility of intermediate projections, however, does not rule out coordination of the string beginning with the verb in (37c). This is because in the bottom-up derivational approach Chomsky (1995) develops, at the stage where Foc (containing the inverted verb) and its complement (containing the rest) are Merged, the result in the given syntactic context is a maximal projection of Foc. As a maximal projection, this constituent should be able to undergo coordination with a like constituent. The subsequent fronting of focus is then licensed as ATB movement. Note that it still holds that **once** a specifier (the fronted focus) is added to the left of the verb, the maximal projection of Foc will include that specifier, and the constituent formed by the verb and its complement will no longer qualify as a maximal projection. In other words, that constituent is correctly predicted to be unavailable not to coordination, but to any syntactic

the order and the adjacency of the fronted focus and the fronted verb
are ascribed to the syntactic specifier–head configuration they appear in,
coupled with some mechanism of feature checking that is responsible for
triggering focus movement itself. On what has come to be referred to
as a "virus theory" of feature checking (Chomsky 1995), uninterpretable
features (here: an uninterpretable focus feature [u.foc] on Foc) trigger a
movement as soon as as they are introduced into the derivation. Aside
from any features involved in verb movement to Foc, Foc bears no unin-
terpretable features other than [u.foc]; hence no movement to Foc other
than that of a single focus is triggered. Any adjuncts can be added after
focus movement has taken place, hence to the left of focus (or, if adjunc-
tion is also possible to the right, then on the right periphery of FocP). The
fronted focus and the inverted verb therefore surface as linearly adjacent.

That adjacency can be disrupted in finite clauses only by the clausal
negation particle *nem*. It is argued in Surányi (2002; 2004; 2006b) that
the clausal negation particle is generated in a specifier position in this
language (it is phrasal, or 'heavy'), and when it co-occurs with a focus
in the pre-verbal field, the two elements occupy multiple specifiers of
the same functional projection, both entering feature-checking with its
head, checking [u.neg] and [u.foc], respectively. As the functional head
introduces two uninterpretable features, triggering two movements, it is
predicted that the two movements can take place in either order, yielding
a FOC–*nem*–V or a *nem*–FOC–V order, respectively. The exception to
the adjacency of the fronted focus and the finite verb is thus derived. By
parity of reasoning, the same goes for the *nem* > V order and the linear
adjacency of the clausal negation particle *nem* and the finite verb.[26]

It has been frequently proposed in the literature that the surface
position of the VM element and of the verb is that of the specifier and

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operations that apply after focus is added to it, including movement, and possi-
bly, deletion (*modulo* Lasnik's (1999) assumptions cited in section **3.2.1** above).
That seems to be true not only of (37c) in Hungarian, but also of various V2
constructions in Germanic, including matrix questions in English. The same pre-
diction, again correctly, extends to consitutents including the lowest (innermost)
specifier, the head and the complement in phrases featuring multiple specifiers
(i.e., the emboldened part in [Spec1 **[Spec2 H [Compl]]**]). Such constituents
(for instance in clauses with multiple *wh*-fronting) cannot be moved, but can be
coordinated.

[26] As the main concern of the present paper is the syntax of verbal particles, and
more generally, VM elements, adjacency effects involving the fronted focus and
negation, as well as their suspension in well-defined contexts, are not discussed
any further here, but are left for future work.

the head of the same functional projection. According to the evidence in section **3.1**, this functional phrase must be projected higher than vP. Piñón (1995), Puskás (2000), É. Kiss (2002), and Surányi (2002), among others, identify this projection as AspP. É. Kiss (2006e), however, argues forcefully that the viewpoint (or outer) aspect of the clause is not correlated with this position. Csirmaz (2004) and É. Kiss (2005; 2006e) propose that the relevant functional projection is a PredP, akin to Koster's (1994) PredP projection. On É. Kiss's (2005; 2006e) account, Pred pulls up the verb, and its [+pred] feature also attracts a predicative element to its specifier. It is assumed in Olsvay (2004), É. Kiss (2008a) and in Surányi (to appear) that the surface position of the VM is in the specifier of TP. For the purposes of the former two works, the choice to identify the functional projection housing the VM is more or less coincidental; in fact, TP is much like AspP in Olsvay (2004), where T is assumed to bear a strong aspectual feature. In Surányi (to appear), I present conceptual and empirical arguments in favor of identifying the position of VM with [Spec,TP], on the grounds of word order facts involving the VM in infinitival and in other non-finite contexts (cf. Brody 1995). Following the same line, here I adopt the view that the surface VM position is the specifier of TP. T is associated with an EPP property, but no phi-features. This explains the fact that parallel to subject-prominent languages like English, [Spec,TP] has to be filled (the EPP-property), whereas in contrast to subject-prominent languages, this position does not need to be filled by a DP (the lack of phi-features on T). In section **5**, I briefly return to two possibilities regarding how the VM may come to occupy its resting place in [Spec,TP] in the course of the derivation.

On this type of account, the fact that the VM element is left-adjacent to the verb is a consequence of the feature checking relation between the VM and the functional head T whose specifier it occupies, and whose head is filled by the raised verb. On the analysis adopted here, checking involves the elimination of a generalized EPP feature (for which see Chomsky 2001).

4. The verbal particle is inside vP: An argument from the taxonomy of VMs

Having established that particles (or more broadly, VMs) appear **outside** the vP in Hungarian, let us turn now to some facts that suggest otherwise. As pointed out by É. Kiss (1998; 2002), while goal and route

directional particles as well as stative locative particles are ubiquitous (38b–d), source directional particles are unattested in the VM position, see (38a).[27]

(38) (a) *Belőle   hozott   egy kis   gombát   (az erdőből).
        from.it (= prt) brought-3sg a   little mushroom-acc the woods-from
        intended: 'He brought mushrooms from the woods.'   *(source locative)*

   (b) Bele   tette   a   gombát   a   kosárba.
       into.it (= prt) put-past-3sg the mushroom-acc the basket-into
       'He put the mushroom into the basket.'   *(goal locative)*

   (c) Keresztül   sétált   a   parkon.
       across (= prt) walked-3sg the park-on
       'He walked through the park.'   *(route directional locative)*

   (d) Rajta   állt   a   papírfecnin.
       on.it (= prt) stood-3sg the paper-scrap-on
       'He was standing over the scrap of paper.'   *(stative locative)*

The unavailability of a source particle type in the VM position is argued by É. Kiss (1998; 2002) to be due to the role of VM elements in determining viewpoint aspect. The assumption the account is based on holds that it is VMs that give rise to a perfective or imperfective aspectual interpretation: when preceding an activity verb, goal locative particles license perfective aspect, while stative locative particles (preceding a process verb) give rise to a progressive interpretation. As a source locative has no bearing on the aspectual interpretation of the predicate, it is excluded from the VM position.

Such an explanation seems dubious, however. First, it is unclear why a (perfective) inceptive interpretation should be unobtainable with source locative particles (inceptive aspect is available with some other particles in the language, e.g., the "perfectivizer" *meg*). Second, orientation of trajectory locative particles are not attested either (with activity verbs) (see (39)), despite the fact that they are expected to easily give rise to an imperfective interpretation. Third, the opposition of goal and route locatives on the one hand, and source locatives and orientation

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[27] Source, route, and goal locatives belong to the set of directional locatives. Nondirectional locatives (e.g., *in the room*) are sometimes also referred to as stative. Note the terminological variation in the general literature: the term *directional locative* is often used to refer only to goal directional locatives, and the term *locative* is sometimes employed narrowly to designate stative locatives.

of trajectory locatives on the other, extends to constructions involving (overt or covert) incorporation in other languages as well. This is exemplified by data from English pseudo-passives in (40) (from Nam 2005), which involve covert locative preposition incorporation (see Baker 1988), a process that is not known to be directly related to aspectual interpretation (see also Koopman 2000 for the observation that Dutch prohibits incorporation of source particles, in contrast to goal particles). Pseudo-passivization stranding an orientation of trajectory preposition is also unavailable in English (Nam 2005, fn. 4), see (41).

(39) *Felé   ment   Mari (a várnak).
     towards went-3sg Mary (the castle-dat)
     intended: 'Mary walked towards the castle.' *(orientation of trajectory locative)*

(40) (a) If the boat is jumped into, it may capsize.   *(goal locative)*

     (b) *If the boat is jumped from, it may capsize.   *(source locative)*

     (c) The road can be run across only at great risk.   *(route locative)*

(41) ??The house was advanced towards by John.

Let us add some further observations to this picture. Neither durative, nor completive temporal adpositions can function as an incorporated particle, even though in most cases they are formally identical with their locative counterparts. (42) illustrates this with a particle (intended to be) interpreted duratively.

(42) *Alatta élt   (a török   megszállásnak).
     under.it lived-3sg the Turkish occupation-dat
     intended: 'He lived at the time of the Turkish occupation.'   *(durative)*

In much the same way, "external" (or "outer") stative locatives and "internal" (or "inner") stative locatives are contrasted, the same way as in English (for the latter, see Hornstein–Weinberg 1981):

(43) (a) Benne aludt   János   a   régi szekrényben.
          in.it   slept-3sg John-nom the old wardrobe-in
          'John slept in the old wardrobe.'

     (b) *Benne láttam   egy filmet   az új   moziban.
          in.it   saw-1sg a   film-acc the new cimena-in
          'I saw a film in the new cinema.'

(44) (a) My bed was slept in last night.

  (b) *New York was slept in last night.

As for bare NP incorporation, agentive subjects, in contrast to unac-
cusative subjects, have been shown to be excluded from being incorpo-
rated (e.g., (45a); see Marácz 1989; É. Kiss 2002).[28] We can add that
experiencer subjects are also banned from the VM position (45b).

(45) (a) *Lány   futott a   parkban.   *(agent)*
        girl-nom ran-3sg the park-in
        '(A) girl ran in the park.'

  (b) *Lány   fél   az egértől.   *(experiencer)*
        girl-nom fear-3sg the mouse-from
        '(A) girl is afraid of mice.'

Ever since Baker's seminal work on the topic (see esp. Baker 1988, 81ff,
244ff), contrasts like the ones above have been conventionally explained
in the domain of head-incorporation in terms of the hierarchical structure
of the verb phrase. Baker proposed that only those heads can undergo
incorporation into the verb that originate in a position governed by the
verb—a restriction that reduces to the Empty Category Principle (ECP).

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[28] Farkas and de Swart (2003) cite (i) to illustrate that agentive subjects can also be
incorporated. The verb *sír* 'cry' is not agentive, however (a volitional adverb like
deliberately renders (i) unacceptable). But even putting that aside, omission of
the locative phrase from (i) results in clear ungrammaticality. The verb *sír* 'cry'
in this special use is analogous to Szabolcsi's (1986) "bleached" existential verbs,
whose descriptive content is "backgrounded". If so, then the main verb in (i) is
existential, and crying denotes the manner of existence. A related possibility is
to analyze the verb in (i) as a verb of sound emission. It is a cross-linguistically
relatively well-established fact that verbs of sound emission and verbs of manner
of motion may show not only unergative, but also unaccusative behavior (e.g.,
Levin–Rappaport Hovav 1995). Significantly, agents of transitive and unergative
verbs are plainly banned from the VM position, e.g., (ii).

  (i)   Gyerek   sírt   a   közelben.
        child-nom cried-3sg the vicinity-in
        'A child was crying nearby.'
  (ii) *Gyerek   énekelt egy dalt   a   közelben.
        child-nom sang-3sg a   song-acc the vicinity-in
        'A child was singing a song nearby.'

Accordingly, head-incorporation of an adposition is licensed only from argument PPs (adjuncts being barriers to government) and only under closest c-command.

Even though the notion of government is dispensed with in the current minimalist framework (along with the ECP), closest c-command and the opacity of adjuncts are maintained as restrictions on syntactic movement. Therefore, Baker's account of the relevant oppositions can be transposed into the current model without difficulty.

It will be readily recalled at this point that "incorporation" into the VM position involves XP-movement, rather than head movement. This leaves the relevance of the c-command condition unaffected, since that is a general condition on all movement operations. Closeness may also remain applicable, in principle, implemented in current minimalist theory in the form of a top-down search operation (Agree) for the appropriate filler element. I will ignore the issue of closeness here, as it does not pertain to the main concern of the present work. Finally, the opacity of adjuncts to movement applies to head movement and XP-movement alike. The opacity of adjunct phrases is also irrelevant to the examples I discuss, in which nothing gets subextracted from modifiers of the verb (rather, it is the modifier phrases themselves that raise to the VM position). Nevertheless, it is worth pointing out that "incorporation" of a dependent of an adjunct by subextraction from the adjunct to the VM position is generally unattested, as expected.

The distinction between incorporating an adjunct vs. a dependent of an adjunct has any significance only if the locus of "incorporation", viz. the VM position, is lower than the base position of any adjuncts. This is because the c-command condition precludes movement of any element to the VM slot if that movement would have to involve lowering. At least some adjunct phrases do originate sufficiently low, more specifically, below the VM site. Unless further conditions get involved, these adjuncts are expected to be licit fillers of the VM position via XP-movement.[29] This prediction is correct. In cases where no further conditions interfere, (sufficiently low) adjuncts can indeed raise to the VM slot. For instance, the sentence in (46) involves a (goal) VM element not selected by the verb.

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[29] This contrasts with Bakerian incorporation of an adjunct via head movement, at least in those cases where the head strands its dependent(s). In such a case, head-incorporation from an adjunct position qualifies as subextraction from an adjunct.

(46) János gyorsan hozzá   írt   valamit   a   cikkhez.
      J-nom quickly to.it (= prt) wrote something-acc the article-to
      'John quickly added something to the article.'

Examples of VM elements that are apparently not selected by the verb
are numerous. Being unselected is no guarantee, however, that the VM
element is base generated in an adjunct position. Unselected VMs may
easily originate as resultative secondary predicates within a complement
Small Clause. É. Kiss (2005) in fact suggests that all verbal particles are
born as a secondary predicate that (on a Small Clause approach) corre-
sponds to the predicate of a complement Small Clause. Discussing loca-
tive particles, Surányi (2009) provides empirical arguments that at least
some VMs do originate as a true adjunct. One test employed there relies
on optional implicit arguments. It is a well-documented fact that when
augmenting a transitive verb with an optional implicit argument (like
English *eat (something)*), the argument cannot be left implicit in resulta-
tive particle constructions (like *eat *(something) up*). Optional implicit
arguments are not forced to overtly appear in examples like (46) above,
where *valamit* 'something-acc' may be dropped. This suggests that the
unselected locative particle in (46) does not function as a resultative sec-
ondary predicate, but must be a true adjunct. For more arguments that
VMs may be base-generated adjuncts, see Surányi (*ibid.*).

Based on the simple premises adopted following Baker, the conclu-
sion to draw regarding the location of the VM position in the clause is
that it is below the base position of those elements that cannot "incorpo-
rate" and above the base position of those that can. This is summarized
in the schematic representation below (OT = orientation of trajectory,
Oblique = oblique internal argument):

(47) [. . . Temp/Subj$_{agentive}$/Subj$_{experiencer}$/Source/OT/Stative$_{external}$. . .
       [**VM**. . . . . . [. . . Stative$_{internal}$/Route/Goal/Theme/Oblique. . .]]]

4.1. Relative base positions within *v*P: Ramifications verified

Significantly, the diagram in (47) ties in with current views of the relative
base positions of the elements involved. For reasons of space, I can only
offer a brief summary here.

As far as arguments are concerned, the received view is that agents and experiencers are both generated higher than goals and themes.[30] However, in the domain of adjuncts, (non-directional) locative adverbials are not universally differentiated in the literature from temporal, instrumental and other adjuncts, based on the ill-perceived observation that these adverbials are freely ordered with respect to each other (e.g., Ernst 2002; Haider 2000). Careful testing reveals, however, that these adverbials too are arranged hierarchically in basic structure (a structure unaffected by focus-related movements) (e.g., Nilsen 2000; Cinque 2006, Ch. 6; Schweikert 2005).

Temporal adverbials have been shown to be higher than locatives (e.g., Nilsen 2000; Cinque 2006, Ch. 6; Schweikert 2005). Zooming in on locatives, stative locatives are characteristically analyzed as generated either inside the (maximal) verbal phrase (Larson 1988; Pesetsky 1995; Nilsen 2000; among others) or in a low region immediately above it (Hinterhölzl 2002; Cinque 2006, Ch. 6; Baltin 2007; among others). They are often taken to be "event-external," modifying the whole of the eventuality denoted by the (maximal) verb phrase. On the other hand, directionals are seen as "event-internal", modifying the event (or a subevent) internally, or predicating of some participant in the event. "Internal" stative locatives (as in (37a), or in *Eva signed the contract on a separate sheet of paper*) are also "event-internal" in this sense (see Maienborn 2003). Correspondingly, directional locatives and "internal" statives have been argued to be located below "external" statives at the level of basic clause structure (e.g., Hoekstra 1984; Nilsen 2000; Tungseth 2003; Schweikert 2005; Nam 2005). On account of the role that "internal" locatives play in shaping argument structure and event structure composition, they are typically mapped to the lower part of a (sometimes richly) layered verb phrase.[31]

Finally, it has been argued that source locatives are generated higher than goal locatives are (Nam 2005; Ramchand 2008). Anaphor licensing provides corroborating evidence for this view, as witnessed by the pair of examples in (48). The source can A-bind an anaphor within the goal locative in a source > goal linear order (48a). The same example deteri-

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[30] Surányi (2006a;c) and É. Kiss (2008b) have recently argued that external arguments are base-generated higher than internal arguments in Hungarian, too.

[31] Hoekstra (1984) analyzes directional PPs as a Small Clause complement to the verb (with the internal argument appearing as a Small Clause subject), while locative PPs as adjuncts to the intermediate projection of V.

orates somewhat, though it remains basically acceptable, when the goal precedes the source (48a′). A goal cannot A-bind an anaphor within the source locative in a (48b), where, similarly to (48a), the order is source > goal. The acceptability of this sentence is only slightly improved when the goal is fronted to the left of the source (48b′).

(48) (a) Átültették   a két egérből$_i$ egymás$_i$ testébe   a chipet.
         transplanted-3pl the two mouse$_i$-from each.other$_i$ body-poss-into the chip-acc
         'They transplanted the chips from the two mice into each other's bodies.'

    (a′) $^?$Átültették   egymás$_i$ testébe   a két egérből$_i$ a chipet.
         transplanted-3pl each.other$_i$ body-poss-into the two mouse$_i$-from the chip-acc

    (b) *Átültették   egymás   testéből$_i$ a két egérbe$_i$ a chipet.
         transplanted-3pl each.other$_i$ body-poss-from the two mouse$_i$-into the chip-acc
         'They transplanted the chips into the two mice from each other's bodies.'

    (b′) $^{??}$Átültették   a két egérbe$_i$ egymás   testéből$_i$ a chipet.
         transplanted-3pl the two mouse$_i$-into each.other$_i$ body-poss-from the chip-acc

Precisely the same pattern of judgments obtains with an external argument subject and an internal argument object, as shown in Surányi (2006a;c). According to the account of this pattern proposed there, the subject is base-generated in a position higher than the object, and whenever their order is reversed, the object has undergone scrambling movement akin to local scrambling in Japanese (where similar facts are attested). The account straightforwardly extends to the pattern above if a source is indeed base-generated higher than a goal locative, yielding a source > goal basic order. If a goal PP containing an anaphor bound by the source locative is scrambled above and to the left of the source (as in (48a′)), the binding of the anaphor will not be significantly disturbed. In (48b) the binding of the anaphor inside the source by the goal is unavailable in the basic order goal > source. The scrambling of the goal PP above the source PP in (48b′) is able to ameliorate the unacceptability of the sentence only to a very limited extent. As this replicates a parallel effect found with local scrambling of a postverbal object above the subject in Hungarian (and in Japanese-type short scrambling more generally), we can safely conclude that the base hierarchy has source above goal in Hungarian, too.[32]

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[32] Bakerian source locative incorporation is cross-linguistically rather rare (see Baker 1988, 240 for a Chichewa example), compared to stative locative and goal

As can be seen from this brief discussion, the structural grouping sketched in (47) above is corroborated by the pairwise relative hierarchical relations holding between members of the set of elements above and the set of elements below the VM position in the schematic representation. The conclusion to draw based on the facts summarized by (47) is that the VM position is situated somewhere below the vP projection, hosting the external argument subjects, and probably also dominating source and orientation of trajectory adverbials, and above the VP, containing oblique, goal and theme arguments, as well as internal stative locatives.

5. A two-step derivation for verbal particles

The conclusion we have just reached, however, apparently contradicts the results of the previous section, according to which the VM position to which particles raise is located **outside** the vP. Significantly, however, whereas the arguments that point to the fact that the VM position lies outside the vP are pertinent to the surface position of the VM, the evidence that the VM slot must be located in between vP and VP do not necessarily bear on its surface position. Rather, the relevant evidence concerns the position at which "incorporation" takes place within the syntactic derivation. If we embrace the conclusion that the "incorporation" site is indeed between vP and VP, and that no incorporation can happen in any higher position, then the paradox can be resolved straightforwardly by assuming that the "incorporation" site of VMs is actually an intermediate position in the derivation. The derivational stage at which the VM occupies this intermediate position serves as input to further phrasal movement due to which the VM ends up outside the vP. I propose to adopt such a two-step derivation for VM elements: first VMs "incorporate" by XP-movement into a verb phrase medial position, in particular, to a position below vP and above VP, which is then followed by a second XP-movement to a position above the vP.

Farkas and de Swart (2003) argue that bare nominals must occupy the VM position in neutral clauses because, first, they can only be interpreted as semantically incorporated into the verbal predicate, and second, the mode of composition of semantic incorporation is available exclusively in the VM position. In section **3.2.1** above I suggested that this

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incorporation, which once again relates to the relative height of source locatives in the verb phrase hierarchy (see Nam 2005; cf. also Ramchand 2008).

analysis can be generalized to all VM–V complexes formed by a verb and a VM it selects (including particle–verb, lexical locative argument–verb, and verb–verb combinations). That means that all such VM–V expressions involve semantic incorporation yielding a single complex semantic predicate. This is an explicit reformulation of a central tenet of a lexicalist approach to VMs, according to which the VM and the verb form a "complex predicate" (e.g., Ackerman–Webelhuth 1997; see also Neeleman 1994). Koster (1994) argues for an analogous syntactic slot in the Dutch clause (which he terms PredP), where complex predicates are formed with the verbal predicate.[33] Csirmaz (2004) and É. Kiss (2005) propose to identify the surface VM position (of unambiguously phrasal VMs) as PredP.

I submit that it is the lower, vP-medial VM position where PredP is projected, and where semantic incorporation takes place.[34] The core structure of the lower part of the Hungarian clause can then be summarized as in (49), where the VM, which eventually ends up in the specifier of TP, is in its intermediate "incorporation" position in [Spec,PredP].

(49) $[_{\text{TP}}$ T $[_{v\text{P}}$ v $[_{\text{PredP}}$ VM Pred $[_{\text{VP}}$ V$]]]]$

6. Extensions

The objective of the present work was merely to establish that there must be two "VM positions" in the Hungarian clause, a surface VM position outside vP, and an intermediate VM position, which is inside vP. The major issue that arises if (49) is correct is whether it is the verbal

[33] The properties of PredP in Hungarian, as conceived of here, and those of PredP in Dutch, as proposed by Koster (1994) diverge beyond this point. Koster assumes that PredP is not a unique projection; PredP of the present account is. The points at which PredP can be projected in a sentence in Dutch and in Hungarian are apparently different. Koster's PredP licenses all prepositional (PP) objects as well as oblique objects; PredP in Hungarian does not.

   The uniqueness of PredP in Hungarian, a syntactic property of the language, limits the number of semantically incorporated pre-verbal elements to one. Accordingly, there can only be maximally one pre-verbal particle (unlike in Slavic), and the number of bare singular nominals in the clause is also restricted to one.

[34] This view entails at the same time that, contrary to É. Kiss (2005; 2006c), PredP cannot be identical with the locus targeted by (identificational/contrastive) focus movement, a position projected higher up in the clause structure (and targeted by all the adverbial and nominal elements enumerated in (47) above).

particle (or VM) itself that moves on to its *v*P-external surface position, or rather, it is the projection that hosts it in its specifier (i.e., PredP) that raises there. To round up and conclude the discussion, I highlight some potential consequences of the latter analysis, when complementing the structural account summarized in (49). A full evaluation of the merits, potential adjustments and extensions of this alternative is beyond the scope of this paper, therefore I will have to restrict myself to a brief sketch here.

On the assumption that it is PredP that moves to [Spec,TP], this movement would have to be preceded by transformations that evacuate the VP below PredP (much like in Koopman–Szabolcsi 2000, in this respect, and similarly to Koster 2000). On that analysis, if the verb raises to T, as I suggested above, then the PredP category that moves to [Spec,TP] only contains the VM in its own specifier.[35] The EPP property of T is then checked under adjacency not by VM, but by the category PredP. Note that EPP is satisfied by the presence of a category in [Spec,TP], but it is not sensitive to the PF-matrix that that category is associated with at PF (EPP is not checked in the PF component, but as part of Transfer, cf. Chomsky 2001). This is the reason why phonetically null pronouns, PRO, 'trace' occurrences of extracted elements, and null expletives are all equally able to satisfy the EPP property. That implies that a PredP that contains no phonetic material, which is what results if the clause lacks a VM, is equally able to eliminate the EPP of T. This derives verb initial clauses (or TP's).

(50) Találtam   valamit.
     found-1sg something-acc
     'I found something.'

The issue of what motivates the evacuation, what exactly evacuates, and where to, may be addressed in a variety of ways. The choice among

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[35] A distinct possibility, not pursued here for reasons of space and coherence, is to assume that the verb stays in Pred in neutral sentences (but is attracted to T or higher in non-neutral ones). In the same way as in the analysis presented in the main text, PredP raises to [Spec,TP]. On such an account too, the adjacency of the VM and the verb reduces to a specifier-head adjacency, this time between [Spec,PredP] and Pred. In difference to the main text analysis, the unavailability of coordination below a VM falls out directly from constituent structure, independently of the fact that the VM and the verb are included in a single complex predicate. Specifically, at the TP level the verb and any overt material to its right do not form a syntactic constituent.

them is highly intricate, but has no bearing on the main results of this paper. For concreteness, I assume that the evacuation applies to all major constituents contained in Pred's complement rather than to Pred's complement itself. I propose to reduce the evacuation movements to the syntactic transformations behind the free post-verbal order of major constituents of the Hungarian clause (e.g., É. Kiss 2002).[36]

Freedom of word order and freedom in locality of movement have often been related across languages to the overt raising of the verb.[37] É. Kiss (2008a) proposes to apply this idea in a phase-based minimalist theory to Hungarian in an innovative way. She submits that the hierarchical structure of a phase is transformed into a flat structure once vacated by verb movement. This mechanism is language particular, it would appear (though perhaps not entirely unique to Hungarian), and hence it should be reducible to some lexical property in the language, on minimalist assumptions. Let us assume for the sake of simplicity that phase flattening is (indirectly) caused by some property P of the moving verb itself.

I propose the following alternative, inspired by É. Kiss's (2008a) account. First, following much recent work, I do not assume that there is an asymmetry between phasal and non-phasal categories: I adopt the view that each phrase is a "phase" (i.e., a cycle) (see the references cited in Surányi 2007). Property P of the Hungarian verb is that at a stage of the derivation immediately preceding the movement of the verb out of the head of a projection HP, H attracts the major constituents of its complement to the Edge of HP. Specifically, they are moved to an adjunct positon. This is analogous to (successive cyclic) movement of uninterpretable elements to phase edges in Chomsky's phase-based model, though there are differences. For Chomsky, elements that are not yet fully interpretable inside a phase are raised to a specifier position in the Edge of that phase to check an Edge-feature (Chomsky 2001; 2005). I adopt Chomsky's account of the movement of uninterpretable elements from within a phase to its Edge. The movements to the Edge required by

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[36] The proposal I make here is an alternative to the account I presented in Surányi (2006a;c).

[37] For scrambling, see the relevant references cited in Surányi (2006c). See also Chomsky's (1995) conception that head movement makes major constituents (i.e., specifiers, adjuncts and complement) of the phrase HP that the head H is extracted from "equidistant" to positions outside HP, including the moved head H. For a recent application of this conception, see den Dikken (2006).

verb movement are unlike the movements of uninterpretable elements to the same Edge in two regards: the latter involve checking an Edge-feature and target specifier positions, while the former do not involve checking and target adjunct positions. Feature-checking operations take place before non-feature-checking operations at any stage in the derivation. It follows that the movements to an Edge initiated by verb movement follow all Edge-feature driven movements in the same phase.

Adjunction of β to a category α has been treated in recent minimalist literature as involving concatenation of α and β without labeling (see Hornstein–Nunes 2008 and references cited there). Multiple structural adjuncts can be concatenated with the same host, with no hierarchical or linear order defined between the adjuncts, or between the adjuncts and the host. If movement to the Edge of HP immediately before the extraction of the verb from H involves adjunction in this sense, then the result is that at a stage where a verb has just moved out of a phrase HP, all the major categories will be freely ordered adjuncts (concatenates) of HP. The specifier of HP remains in situ, being the only major category in HP that is not affected by the requirement of movement to Edge (since a specifier is by definition part of the Edge of a phrase, see Chomsky 2001). As this requirement applies cyclically at the level of every phrase, we effectively derive free constituent order in the post-verbal field of the Hungarian clause.

A welcome consequence of this approach is that it concurrently provides an account of the evacuation of PredP. Upon completing PredP and immediately before raising the verb in Pred to the next higher head, the major constituents of Pred's complement are raised out and are adjoined to PredP. [Spec,PredP] (= VM) is not affected. PredP itself has some uninterpretable property, which licenses it to ultimately move to [Spec,TP] (see below). Due to its uninterpretability, PredP itself must move at the level of the phrase HP above PredP to the Edge of HP, to check an Edge-feature on H. Adjuncts to PredP are moved up to adjoin to HP immediately before verb movement takes place from H to the next higher head position, and the same operations are repeated in all higher cycles until TP is reached. In this manner, the evacuation of PredP is reducible to the syntactic operations underlying free postverbal constituent order in the language.

The next question that arises is what determines the choice of which category should satisfy T's EPP property. The issue may be resolved by analyzing PredP-fronting to TP as a form of predicate inversion, since

PredP is a predicative category. Recall that I assumed, partly follow-
ing conventional wisdom, that VMs form a complex predicate together
with the verb that they semantically incorporate into. If semantic in-
corporation takes place as part of regular semantic composition, then
even though the VM and the verb may end up as a complex unit within
PredP (the VM imposing a predicative restriction on some variable in-
troduced by the verb), technically, VM is semantically composed with a
predicate that is headed by the verb in Pred and contains Pred's comple-
ment as well. Semantic incorporation takes place between two predica-
tive elements yielding a complex predicative element that is essentially
of the same type as the category that semantic incorporation targets (see
Farkas–de Swart 2003 and references cited there). PredP will therefore be
predicative (containing as a proper part a complex predicate composed
of the VM and the verb). On the predicate inversion account being en-
tertained, the fact that Hungarian applies predicate inversion routinely is
arguably made possible by the fact that it does not routinely utilize the
grammatical subject to fill [Spec,TP]. I do not wish to make any com-
mitments here regarding the formal trigger of this inversion operation;
nevertheless, I follow den Dikken (2006) in taking it to be driven partly
by some need of the inverted predicate itself (see den Dikken (*ibid.*) for
a formulation of a generalized trigger for predicate inversion as a prop-
erty of the inverted predicate). Note, however, that the account being
considered treats Hungarian clauses as involving predicate inversion as a
default, rather than as a special case. This circumstance may be related
to the property of the [Spec,TP] position that it happens to align with
the default position of the nuclear accent of the clause, which in turn de-
termines its bearer to be the (default) (information) focus. If it is PredP
that occupies that position, then PredP will be interpreted as the (infor-
mation) focus of the clause. As PredP contains ("trace" copies of) the
verb and its internal arguments (and "low" adjuncts), the interpretation
will be that of broad focus ("VP-focus").

   Finally, I briefly turn to roll-up structures, involving a sequence of
infinitives. On the present approach, the adjacency of all the elements
in a rolled-up verbal complex can be ascribed to the very same factor
that determines a verb and its VM preceding it to be adjacent: the
specifier–head relation. In roll-up constructions, the specifier position at
issue may be either [Spec,TP] or [Spec,PredP]. Recall from section **3.2.1**
above that a condition on roll-up to a higher clause is the formation of
a "natural predicate" together with the higher verb, which I took to be

a sign of semantic incorporation. As semantic incorporation is linked to the PredP projection, it can be concluded that the direct landing site of a roll-up movement is a [Spec,PredP] position. If a TP is projected in the infinitival clause where the rolled-up constituent has landed, then PredP-to-[Spec,TP] movement proceeds internal to that clause as usual, and V raises to T. The structure behind the adjacency effect in this case is the same as before.

It is argued in Surányi (to appear) on independent grounds that infinitivals in Hungarian may or may not project a TP. Let us assume so. If the lowest infinitival in a sentence does project a TP, then its PredP will be inverted to [Spec,TP] of its own clause. In this case, the order of the verbs remains straight, and the VM of the lowest verb precedes it. If the lowest clause does not have a TP projection, PredP will be inverted to [Spec,PredP] of the next higher clause. If that clause lacks a TP too, the roll-up continues to the next higher [Spec,PredP]. Once roll-up reaches a clause that has a TP projection too, the PredP of that clause (containing the already rolled-up VM–V–. . .–V sequence) will be inverted to the local [Spec,TP], and roll-up stops. The basic assumption employed in these derivations is that the inversion of a PredP predicate obeys a strict kind of locality: a PredP predicate has to move to the closest projection where it gets licensed, be it a TP or another PredP (where it is licensed by being semantically incorporated).

7. Concluding remarks

This paper had the modest aim to argue for a basic two-step clausal syntax of verbal particles (and more generally, the class of VMs) according to which verbal particles generated within VP are first raised to a verb phrase medial position between VP and *v*P, which is followed by further displacement bringing the particle to a *v*P-external surface position, equated here with the specifier of TP. The verb phrase medial position was identified as the specifier of a PredP, which was taken to be the locus of semantic incorporation in the clausal hierarchy.

I have had to omit many details along the way that were not immediately relevant to the main contentions of the discussion. A variety of questions are left for future work. Among other things, I left open what factors determine the choice of the constituent that is raised to the [Spec,PredP] position to be semantically incorporated into the verbal predicate. One relevant issue I discuss elsewhere is the base position of

verbal particles. In the literature on Hungarian, É. Kiss (2005; 2006e) represents the radical view that all incorporated verbal particles in the language are secondary predicates (although she is not committed to a Small Clause based structural analysis of secondary predicates). In section **4** above, I argued that at least some VMs originate as adjuncts. In Surányi (2009), I demonstrate on the basis of the syntax of locative particles that verbal particles can be base-generated in any one of three possible positions: in a complement Small Clause (secondary) predicate position, in a complement position, or in a (low) adjunct position.

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