“Incorporated” locative adverbials in Hungarian
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1. Introduction
Directional locative adverbial expressions and particles have stimulated a great deal of interest in recent years as part of the intensified investigations into the detailed cartography of the syntax of adverbials at large. As for non-directional (or stative) locative adverbial adjuncts, it is relatively well-established by now that – abstracting away from their topic-like or scene-setting/frame-adverbial use, as well as from their occurrence as a selected argument or a secondary predicate – they occupy a relatively low position among circumstantial adverbials in terms of a Cinquean hierarchy (Cinque 1999: 28–29). Among directional locatives, goal adverbials are thought to occupy an especially low position, embedded in an articulated verb phrase structure.

The cross-linguistic study of verbal particles has contributed greatly to a better understanding of the internal micro-structure and semantic composition of the layered verb phrase containing locative adverbials. The Slavic particle inventory has traditionally been divided into the “outer” or “superlexical” and the “inner” or “lexical” class of particles (abstracting away from purely perfectivizing prefixes) (see Babko-Mayala 2003, Romanova 2004, and references therein), where the latter class are analogous to verbal particles in Germanic. Lexical prefixes characteristically have a basic spatial/locative meaning, and 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, take away). In syntactically based approaches (see Ramchand and Svenonius 2002: 102 for references to lexicalist, or more broadly, “complex predicate” accounts), these particles are typically analyzed as (secondary) predicative elements, originating in the predicate part of a resultative Small Clause generated below the verb (e.g., Hoekstra 1984, 1988; Hoekstra and Mulder 1990; Kayne 1985; den Dikken 1995; Svenonius 1994, 2004; Ramchand and Svenonius 2002; Ramchand 2004). One prominent view holds that particles can then move higher by head movement, and can incorporate into a head in the verbal domain (cf. also inseparable particles of German). This derivation is applied to particle shift constructions in Germanic, as in (1a), and modulo differences, to lexical prefix incorporation in Slavic, as in (1b) (adapted from Rojina 2004), corresponding to (1c) (e.g., Svenonius 1994;

(1) a. [FP₁ take F₁ [FP₂ away, ] [FP₃ the pizza [F₃ t₁ ] ]]]
   b. [FP₁ [F₁ vy+šel ] [FP₂ [F₂ t₁ ] iz-za stola ] ]
   c. Čon vy-šel iz-za stola
   ‘He out-went out.of-behind table
   ‘He got up from the table.’

The study of the syntax of locative particles has generally had its main empirical focus predominantly on Slavic and Germanic languages. The present paper sets out to provide a syntactic analysis of the apparent “incorporation” of (esp. directional) locative particles in Hungarian, a non-Indo-European language, seeking analogues and comparisons with the syntax of particles in Germanic and Slavic.⁴ The “incorporated” particles under scrutiny in this chapter (exemplified in (2a)) are morphosyntactically related to morphologically bound, suffixal adpositions (compare (2b)) (see É. Kiss 2002), whence the term ‘adpositional particle’ that will be used throughout to designate members of this class. “Incorporated” particles are strictly left-adjacent to the verb in ‘neutral’ clauses, forming a single phonological word with it.⁵

(2) a. János hozzá érintett egy műszert (a vezetékhez)
   John PRT touched-3SG an instrument-ACC (the wire-to)
   ‘John touched an instrument to it (to the wire).’
   b. János hoz
   John-to

In what lies ahead, I aim to substantiate the following main claims regarding “incorporated” adpositional locative particles in Hungarian. First, in Section 2 it is demonstrated that the particles at issue have a phrasal status, and that they are categorically adpositional. They are shown to undergo XP-movement out of vP in neutral clauses, surfacing in an immediately preverbal position. It is argued that their movement to this position involves two steps: they are first raised to a specifier within a layered verb phrase, flanked between vP and VP (a verb phrase medial position), which is then followed by further displacement of the particles to a vP-external position. Section 3 investigates the range of argument structures that directional locative adpositional particles may derive from, arguing that (contrary to a popular view) their telicizing effect is not
contingent on their function as a resultative secondary predicate: they may originate as ordinary complements, and also as (verb phrase internal) adjuncts. It is proposed in Section 4 that in their verb phrase medial position, adpositional particles are semantically incorporated into the verbal predicate. In Section 5 the syntactic relation is scrutinized that the adpositional particle bears to an optional lexical locative ‘associate’ phrase (appearing between brackets in (2a) above). Contrasting them with some other particle types, it is argued that the locative adpositional particles examined in this chapter are related to their ‘associate’ phrase by a direct (“light-headed”) movement chain, whose tail is spelled out in full and whose head link is realized at PF as an optimally reduced form. Section 6 concludes with a summary.

2. Phrasal “incorporation” of locative particles

2.1 The syntactic category of locative particles

Particles, especially locative 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. Locative particles like the one in (2a), which morphologically contain an adverbial case suffix (see (2b)), have also been argued to be (complex elements headed by) adpositions, based on the broader assumption that adverbial 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 and Huijbregts 2007).

There is in fact overt morphological evidence that Hungarian locative particles are adpositional, and in fact, phrasal. 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 (3a)) bear person/number inflection when their complement is a personal pronoun (as in (3b)). 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 (2a) above bear the same paradigm of inflections agreeing with their pronominal complements (see (4a–b)), they too should have a possessive structure, with a suffixal adposition being 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 expected, given the affixal nature of this class of postpositions.

(3) a. *Mari után*  
   Mary after  
   b. *te után-ad*  
   you after-2SG

(4) a. *Mari-ért*  
   Mary-for  
   b. *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, realized by a silent *pro* (the natural choice 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 that may alternate with lexical locative PPs, see (5) below), the locative particle in Hungarian is a full-fledged phrase, a PP containing a proper (pronominal) argument.

(5) a. *John climbed up the slope*  
   b. *John climbed up*

As expected, locative particles, and indeed all verbal particles in Hungarian, may undergo XP-movement. Most importantly, they can be contrastively topicalized and focused on their own. They can raise across a sequence of superordinate verbal heads (VM “climbing”), which has also been taken as an indication that they are phrasal (see Farkas and Sadock 1989; Brody 2000; Koopman and Szabolcsi 2000; see also Den Dikken 2004; Williams 2004, a.o.).

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. Note 5). 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 (6):

(6) \[ \text{OP} \ V_{\text{fin}} \ldots \ PRT \ldots \]

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; Puskas 2000; though see É. Kiss (2002) and (2005, 2006d) for two alternatives), which on mainstream assumptions 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 \([PRT \ V]\), then this would mean 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).

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 particles in Hungarian, locative particles among them, are phrasal categories. Similar arguments can, and have been, made for the case of German/Dutch type separable verbal prefixes, as well as for English-type verbal particles (see Zeller (2001) for a host of such arguments applied to German).

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 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). 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 also occupy one and the same structural position in the phrase-marker (which has come to be called the “VM position”). 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.
2.2 Locative particles are outside vP

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 (7a) could be a continuation of (2a). Similarly, in a sentence where the bracketed string in (7a) is overt, it can undergo coordination, as well as Right Node Raising. (7b) illustrates the latter in a sentence where the affected constituent contains an object, an agentive subject and an adverb of frequency.

(7) a. Mari is hozzá érintett [egy műszert (a vezetőkhez)]
   Mary too PRT touched-3SG an instrument-ACC the wire-to
   ‘Mary did too.’

b. 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.’

The observation that purpose infinitives, standardly analyzed as vP-external adjuncts, can climb to the VM position also suggests that the VM position targeted in VM climbing must at least be outside vP (otherwise, “incorporation” in such cases would involve lowering).

(8) Amikor csak vásárolni indulok …
   when only shop-inf leave-1sg
   ‘Whenever I leave to do shopping, …’

We then have evidence that both the verb and the VM element, which originate inside the vP, undergo syntactic movement and appear in a derived position at surface structure. The fact that the constituent undergoing Right Node Raising, coordination or deletion may contain objects, (both agentive and non-agentive) subjects, all sorts of oblique arguments as well as 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. Let us 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.

In view of the phrasal nature of movements to the VM position, “incorporation” of nominals in Hungarian is “pseudo-incorporation” in the sense of Massam (2001) (essentially, Mithun’s (1984) notion of Type I incorporation, “incorporation by juxtaposition”). Massam shows for the Polynesian language Niuean that its incorporated nominals are phrasal: just like in Hungarian, “incorporated” nominals can include a number of modifiers, but no determiner. She argues that no syntactic incorporation proper takes place with such bare NPs: the adjacency of V and the “incorporated” internal argument NP is simply due to basic constituency structure: the V+NP unit corresponds to the (smallest) VP. Hungarian pseudo-incorporation is structurally different from that found in Niuean (and Hindi (Dayal 1999), Chamorro (Chung and Ladusaw 2003)), however. The constituency facts reviewed above as well as the availability of a varied range of elements in the VM position other than internal argument bare NPs both strongly suggest that the adjacency of the pseudo-incorporated NP and the verb cannot be put down to adjacent base-generation inside the (smallest) VP.

A mainstream syntactic analysis of the VM position that meets the syntactic desiderata established thus far equates it with the specifier of a functional phrase projected above the (maximal) verbal phrase. According to a common view, this functional projection is identified as AspP (on account of aspectual correlates of various types of VM elements in the preverbal position; see Piñón 1992, 1995; cf. Puskas 2000; É. Kiss 2002). An alternative conception identifies it with (Koster’s 1994) PredP (on account of the predicative nature of many, perhaps all, of the elements appearing here; see É. Kiss 2005, 2006a, d; cf. the ‘complex predicate’ accounts, e.g., Komlósy and Ackermann 1983; Ackermann 1984). On these approaches, the adjacency of the VM and the verb is often taken to be the reflex of V-movement to the head of the functional projection housing the VM in its specifier (AspP or PredP).

### 2.3 Locative particles are inside vP

Having established that particles (or more broadly VMs) appear outside the vP in Hungarian, let us turn now to considerations that suggest otherwise. As pointed out by É. Kiss (1998c, 2002), while goal and route directional
particles as well as stative locative particles are ubiquitous, source directional particles are unattested in the “incorporated” position (see (9a)). The unavailability of this particle type in the VM position is argued by É. Kiss (1998c, 2002) to be due to the role of VM elements in determining viewpoint aspect, the assumption being that it is VMs that give rise to a perfective or imperfective asp...iewpoint aspect, the assumption being that it is VMs that give rise to a perfective or imperfective asp...iewpoint aspect, the assumption being that it is VMs that give rise to a perfective or imperfective asp...iewpoint aspect, the assumption being that it is VMs that give rise to a perfective or imperfective asp...iewpoint aspect, the assumption being that it is VMs that give rise to a perfective or imperfective asp...iewpoint aspect, the assumption being that it is VMs that give rise to a perfective or imperfective interpretation.

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 (9b)), despite the fact that they are expected to easily give rise to an imperfective interpretation. Third, an analogous situation holds in other languages as well with respect to the opposition of goal and route locatives on the one hand, and source locatives and orientation of trajectory locatives on the other, in constructions involving (overt or covert) incorporation. This is exemplified by data from English pseudo-passives in (10) (from Nam 2005), which involve covert locative preposition incorporation (see Baker 1988), a process that is not known to be related to asp...iewpoint interpretation (see 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 (11).

(9) a. *Belőle hozott gombát (az erdőből)  
   from.it(=PRT) brought-3SG mushroom-ACC the woods-from  
   intended: ‘He brought mushrooms from the woods.’
   b. *Felé ment Mari (a várnak)  
   towards-3SG went-3SG Mary (the castle-DAT)  
   intended: ‘Mary walked towards the castle.’

(10) a. If the boat is jumped into, it may capsize. (goal)  
   b. *If the boat is jumped from, it may capsize. (source)  
   c. The road can be run across only at great risk. (route)

(11) ??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. (12) illustrates this with a particle (intended to be) interpreted duratively.

(12) *Alatta  élt  (a török megszállásnak)
under.it lived-3SG (the Turkish occupation-DAT)
intended: ‘He lived at the time of the Turkish occupation.’

In much the same way, “external” (or “outer”) stative locatives and “internal” (or “inner”) stative locatives are contrasted, both in Hungarian and in English (for the latter, see Hornstein and Weinberg 1981):

(13)  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 cinema-in
     ‘I saw a film in the new cinema.’

(14)  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 unaccusative subjects, have been shown to be excluded from being incorporated (see Marácz 1989; É. Kiss 2002). We can add that experiencer subjects are also banned from the VM position.

Ever since Baker’s seminal work on the topic (see esp. Baker (1988: 81ff, 244ff)), contrasts like these in the domain of head-incorporation have been conventionally explained 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). 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, thus Baker’s account of the relevant oppositions can be transposed seamlessly into the current model.

It will be readily recalled at this point that “incorporation” in Hungarian involves XP-movement, rather than head movement. This leaves the relevance of the c-command condition unaffected, as that is a general condition on all movement operations. Closeness also remains applicable, in principle, implemented in current minimalist theory in the form of a top-down search operation for the appropriate filler element. I will ignore the issue of closeness here, as it does not pertain to the main concerns of this paper. Finally, the opacity of adjuncts to movement applies to head movement and XP-movement alike. Although the opacity of adjunct phrases is also irrelevant to the examples I discuss here, in which nothing gets subextracted from modifiers of the verb (rather, it is the modifier phrases themselves that raise to the VM position), it is to be noted that “incorporation” of a dependent of an adjunct is generally unattested, as expected.

The distinction between incorporating an adjunct vs. a dependent of an adjunct may be insignificant, anyway, if the locus of “incorporation,” viz. the VM position, turns out to be lower than the base position of any adjuncts. This is because the c-command condition precludes movement of an adjunct to the VM slot, if that movement would have to involve lowering. However, some adjunct phrases 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. (This contrasts with incorporation via head movement, at least in those cases where the head strands its dependent(s), i.e., where head-incorporation from an adjunct position qualifies as subextraction from an adjunct.) It will be shown in the next section that this prediction is indeed correct: in cases where no further conditions interfere, (low) adjuncts too can raise and be “incorporated” in the VM position.

Based on these simple premises, embraced following Baker, the conclusion 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 “incorporate” 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):

\[(15) […]\text{Temp/\text{Subjective}/Subj, experiencer/Source/OT/Stative, external}…[\text{VM}…\text{[…Stative, internal/Route/Goal/Theme/Oblique…]]}]\]
Significantly, the diagram in (15) ties in with current views of the relative base positions of the elements involved. First, agent and experiencer subjects are both known to be higher than goals and themes.\textsuperscript{15} Similarly, temporal adverbials are known 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; a.o.) or in the low region immediately above it (Hinterhölzl 2002; Cinque 2006, Ch. 6; Baltin 2007; a.o.). They are often taken to be “event-external,” modifying the whole of the eventuality denoted by the (maximal) verb phrase. On the other hand, directional are seen as “event-internal,” modifying the event (or a subevent) internally, or predating of some participant in the event. “Internal” stative locatives (as in (13a), 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 are located below “external” statives at the level of basic structure (e.g., Hoekstra 1984; Nilsen 2000; Tungseth 2003; Schweikert 2005; Nam 2005). On account of the role that the former play in shaping argument structure and event structure composition, they are typically mapped to the lower part of a (sometimes richly) layered verb phrase.\textsuperscript{16}

Finally, source locatives have been argued to be generated higher than goal locatives (Nam 2005; Ramchand 2008). Anaphor licensing provides corroborating evidence for this view, as witnessed by the pair of examples in (16): the source can A-bind an anaphor within the goal PP (16a), whereas a goal cannot A-bind an anaphor within the source PP (16b).

(16) a. Átültették a két egérből, egymás testébe
transplanted-3PL the two mouse-from each other’s body-into
a microchip
the microchip-ACC
‘They transplanted the microchips from the two mice into each other’s bodies.’

b. *Átültették egymás testéből, a két egérbe,
transplanted-3PL each other’s body-from the two mouse-into
a microchip
the microchip-ACC
‘They transplanted the microchips into the two mice from each other’s bodies.’
If the goal PP, generated lower, is scrambled above the source PP (into the position indicated by the brackets), (16a) becomes slightly degraded. The corresponding scrambling of the goal PP above the source PP in (16b) somewhat ameliorates the unacceptability of the example. This replicates an analogous effect found with local scrambling of a postverbal object above the subject in Hungarian (see Surányi 2006), and in Japanese-type short scrambling more generally, hence we can safely conclude that the base hierarchy is source > goal in Hungarian too.17

2.4 A two-step derivation of incorporated particles
The conclusion to draw based on the summary in (15) 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). This conclusion, however, apparently contradicts the results of the first part of this subsection, according to which the VM position is outside the vP. Note that 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 the surface position of the VM: 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.

Drawing on the basic insight of É. Kiss (2005, 2006a, d) that the VM position is filled by elements that are “predicative,” I submit that it is the lower, intermediate VM position that has a “predicative” nature. Adopting É. Kiss’s label (borrowed in turn from Zwart 1993; Koster 1994), I will refer to the projection that houses this position as PredP.18 This view entails at the same time that, contrary to É. Kiss (2005, 2006d), 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 (15) above). Also departing from É. Kiss (2005, 2006a, d), I will be assuming that the “predicative” nature of this structural slot is due to the mode of composition available (exclusively) in this position (see Farkas and de Swart 2003), namely, semantic incorporation, an idea elaborated in Section 4 below.

As for the surface VM position projected outside vP, I only point out that nothing substantial in this paper hinges on how we choose to identify it. Therefore I will remain uncommitting regarding the choice between the various plausible possibilities – the most popular one among which in the literature on Hungarian, on account of the apparent aspectual role of the position, is an AspP projection (e.g., É. Kiss 2002). The original proposal, in the context of Hungarian, is due to Piñón (1995), who bases his view on the viewpoint (or outer) aspectual role of the particles and other elements appearing in the VM slot. É. Kiss (2006a), however, argues that the viewpoint (or outer) aspect of the clause is not correlated with this position. Here, I will tentatively equate the surface position of VM with TP, on account of the widely recognized fact that there is apparently no preverbal canonical subject position in Hungarian that would be filled by subject DPs, as well as the fact that the surface VM position seems to have a quasi “EPP” property: abstracting away from systematic and easily explicable exceptions, the VM element (in a neutral clause) has a fixed preverbal surface position.

The core structure of the lower part of the Hungarian clause can then be summarized as in (17), where the VM, which eventually ends up within the specifier of TP, is in its intermediate “incorporation” position in [Spec,PredP].

(17) \[ TP T [\phi v [PredP VM Pred [VP V]]] \]

3. Goal locative particles and argument structure

Having established a basic two-step clausal syntax of locative particles, as members of the class of VMs, in this section I examine the range of argument structures that directional locative adpositional particles may derive from. On some approaches, goal verbal particles are treated uniformly as secondary predicates of Small Clause complements to the verb. On such a view, goal particle incorporation would invariably involve incorporation of a secondary predicate into a primary predicate. As noted in the previous section, based on the XP-movement analysis of
particle “incorporation” presented here, it is expected that direct modifiers of the verb (complements and adjuncts) that are base-generated lower than the incorporation site (PredP in (17) above) should in principle be able to incorporate. This is simply because nothing in the analysis bans them from being raised to [Spec, PredP], provided that their movement obeys the c-command condition. This prediction will be explored below.

Before embarking on the endeavor, a clarifying note is in order regarding the notions of adjunct and argument that will be assumed (Section 3.1). In section 3.2, I review evidence that – contrary to a popular belief – not all goal locatives are resultative secondary predicates, which holds both cross-linguistically and internally to individual languages. Section 3.3 then examines whether or not the range of goal locatives targeted by locative particle incorporation is restricted to resultative predicate goals.

3.1 Event structure and argument structure
As is commonly acknowledged, despite the fact that these two notions have a long tradition in grammatical theory, no generally accepted demarcation criteria have emerged, and even the classic adjunct properties of free omissibility and relative unselectiveness w.r.t. the modifyee are to be handled with great caution. Significantly, in view of the fact that aspectual composition has been identified as a major determinant of argument realization (even if in partly different ways, see e.g., Tenny 1994; van Hout 1996; Levin and Rappaport Hovav 1999, 2001, 2005; Rothstein 2004 for recent accounts; cf. also Goldberg 2005), the distinction between the two notions has become especially difficult to pin down. Levin and Rappaport Hovav (2001: 779) formulate (18) (similar conditions can be found both in their earlier work and elsewhere in the literature, e.g., in Grimshaw 1990, van Hout 1996):

(18) Argument-Per-Subevent Condition
There must be at least one argument XP in the syntax per subevent in the event structure.

According to (18), argument realization patterns reflect event structure, with simple and complex events having distinct argument expression options. For instance, changing the simple event in (19a) into a complex event in (19b) by adding a result state (an alternation called ‘result augmentation’ by Ramchand (2008)) requires the presence of the fake reflexive object. The fake reflexive is not an argument selected by the verb,
nevertheless it is an argument, viz. one that is predicated of by the resultative adjective.

(19) a. We sang
b. We sang *(ourselves) hoarse

In the present paper I follow this general approach to the notion of argumenthood and the relation between event structure and argument structure. Accordingly, I will regard only those locatives as adjuncts that are not defining constituents of (some subevent within) the event expressed by the whole verbal phrase. Particles that function as secondary predicates in a resultative predication are therefore not taken to be adjuncts, despite the fact that the whole of the resultative secondary predication substructure is often optional. The optionality of this substructure may appear on the surface as the optionality of the resultative predicate itself if the (subject) semantic argument of the result (state/location) predicate is identical with a semantic argument of the verb and is phonetically covert, as in (20a). This case, generally referred to as the “control” type of resultatives, contrasts with the “ECM”/“raising” type, illustrated in (20b,c), where the semantic (subject) argument of the resultative predicate is an element distinct from the arguments of the verb (see Dowty 1979; Simpson 1983; Carrier and Randall 1992; and esp. Wechsler 1997 for this bi-partitioning of resultatives).

(20) a. He hammered the metal (PRO flat)
b. The joggers ran (the pavement thin)
c. The audience laughed (the actor off the stage)

3.2 Goal locatives as resultative predicates?
Goal locatives are generally considered to be among the potential exponents of the result state of complex events (see e.g., Beck and Snyder 2001). This is supported, for instance, by the fact that goal locatives and (other) resultative secondary predicates are generally mutually exclusive (e.g., Goldberg 1991; Levin and Rappaport Hovav 1995), see (21a) (from Goldberg 1991: 368). Resultative secondary predicates are also in complementary distribution with one another, see (21b) (from Goldberg 1991: 370), as are goal locatives (of disjoint reference), see (21c).

(21) a. *Sam kicked Bill [black and blue] [out of the room]
b. *She kicked him [bloody] [dead]
c. *He ran [into the kitchen] [into the garden]

Furthermore, adding a result state to an activity predicate can turn the predicate into an accomplishment (22a), and the same is true of the addition of a goal PP (22b) (Tenny 1994). The conceptual similarity between resultatives and goal PP constructions in terms of involving a transition (change of state/location) was pointed out as early as Gruber (1965), and the telicizing role of both has been analyzed by Dowty (1979) as being due to the boundedness incurred by the result state (contributed, among others, by adjectival predicates or goal PPs).

(22) a. He hammered the metal *(flat) in an hour
   b. He pushed the cart *(to the wall) in an hour

On the syntactic side, at least since Stowell (1983), Hoekstra (1984, 1988) and Kayne (1985), a leading syntactic analysis of resultative constructions is essentially a Small Clause (SC) analysis, where the Small Clause is a complement to the verb, and the result phrase itself is a Small Clause predicate (see e.g., Ramchand 2008 and den Dikken 2006 for recent accounts, and references). The Small Clause analysis of resultatives applies – by definition – to result goal PP locatives, as in (20c) above. On the more radical view that goal PPs are resultative predicates across the board (i.e., including cases like (22b)), goal PPs are analyzed as Small Clause predicates more generally. On such an account, the complementarity of resultative predicates and goal PPs would then also be made to follow from the fact that they ‘compete’ for the same (unique) syntactic position.

This, then, extends to goal verbal particles (see Ramchand and Svenonius 2002). That goal particles are raised to the “incorporated” VM position from a resultative secondary predicate position squares well with the general account of verbal particles in Hungarian laid out in É. Kiss (2005, 2006a, d): ordinary resultative secondary predicates are normally raised to the VM position in neutral sentences. É. Kiss (2005, 2006a, d) proposes to analyze all verbal particles in this language (which normally appear in the VM slot in neutral perfective sentences, see Section 1) as invariably being secondary predicates, predicating of the theme argument of the verb. This is a generalization of familiar accounts of (esp. Germanic) verbal particle constructions in terms of resultative secondary predication (see Kayne 1985; Hoekstra 1988, 1992; see also Winkler 1997 for further references).
However, as it turns out, not all goal PPs are necessarily and universally result phrases, and collapsing goal PPs with resultative predicates is much too simplistic. First, languages differ parametrically with respect to whether or not they permit resultatives. Romance languages, Russian, Arabic, Hebrew, Greek and Hindi-Urdu, among others, do not. This group of languages are not without goal PPs, nevertheless. Their goal PPs, however, cannot appear in the position of a result predicate within a Small Clause, assuming that in these languages the resultative construction is simply unavailable. In fact, Snyder and Beck (2001) point out that bounded goal PPs can turn an activity into an accomplishment only in languages that permit resultatives (see also McIntyre 2004 for the correlation between the availability of directed motion with goal PPs and the availability of the resultative construction). This suggests that those bounded goal PPs that turn an activity into an accomplishment occupy a resultative position. Assuming that the semantics of the resultative construction involving a bounded goal locative as the resultative predicate is uniform, regardless of the choice of goal PP (which is the null hypothesis), it follows that bounded goal locatives that do not yield an accomplishment (i.e., all goal PPs in the above language group) are not in a resultative predicate position.26

Such goal PPs may leave the VP atelic (denoting a direction (Jackendoff 1983), a type of unbounded path (Jackendoff 1991)), or they may telicize the VP. Note that resultativity involving an end state/location (by its very nature) entails telicity (for instance, see Dowty 1979; Ramchand 2004), but the reverse does not hold: telicity of a predicate does not entail the attainment of a result state represented in the event composition (contra Dowty 1979). Telicity merely requires a homomorphic mapping between the event and some scale that “measures out” (Tenny 1994) the event (e.g., a scale projected from a path) (see Krifka 1998; Beavers to appear). If the scale is not bounded (as with partial paths excluding the endpoint, viz. goal PPs interpreted as direction, e.g. towards the castle), the predicate is not telicized.27

Goal locatives that telicize the VP can even be generated in an ordinary adjunct position. This is evidenced, for instance, by auxiliary selection in Italian. The auxiliary that goes with atelic–intransitive predicates in Italian (avere) can co-occur with (bounded) goal PPs, which must then be telicizing such activity VPs at a relatively high structural point, as an adjunct (see Folli and Ramchand 2005).28

The two conclusions to draw from this discussion are: (i) goal PPs, as opposed to resultative predicates, do not always telicize, hence they
cannot uniformly be resultative predicates, and (ii) telicization by a goal PP does not imply that the goal PP is a resultative predicate.

These dissociations suggest that the complementary distribution of result states and goal PPs, illustrated above, cannot be motivated syntactically. The reasons for the complementarity effect, if real, must then be semantic or pragmatic, in the spirit of Tenny’s (1987, 1994) Single Delimiting Constraint (for a re-formulation, see Filip (2003: 63)), or Goldberg’s (1991) Unique Path Constraint, based on a metaphorical, abstract goal of motion interpretation of resultative predicates (see also Gruber (1965), Jackendoff (1996) and Krifka (1998), a. o., for the same basic approach). Importantly, however, the complementarity effect is far from total. Lupsa (2004) reports that (21a) is acceptable for four out of her five informants, and she adds further examples where a result predicate co-occurs with a goal PP (Lupsa 2003, 2004); see (23a) below. Her examples are analogous to (23b), which involves a measure phrase (rendering the event telic), as well as a goal PP. Another case of a result predicate co-occurring with a goal PP is represented by sentences where instead of the goal PP it is the result state predicate that functions as an adjunct (see Levin and Rappaport Hovav 1995; Horrocks and Stavrou 2003; Lupsa 2003; and Iwata 2006). Such constructions can be divided into two subtypes, dubbed “weak” and “spurious” resultatives by Washio (1997) and exemplified by (24a) and (24b), respectively (from Iwata 2006). “Weak” resultative predicates further specify a component of the lexical meaning of the verb, while “spurious” resultative predicates are essentially adverbial in nature and can typically be paraphrased using a corresponding adverb (tightly in the case of (24b)); see Kratzer (2005).

(23) a. She ran herself ragged to the store
    b. I ran a mile to the store

(24) a. He screamed as the bonnet fell shut on his fingers
    b. She tied the tourniquet tight around her upper arm

A third conclusion, emerging from these observations (and further corroborated by the Italian auxiliary selection data cited above), is that (iii) both goal locatives and resultative predicates may function as an adjunct.

Whether goal locative complements exist alongside resultative predicate goal PPs (and adjunct goal PPs) is a question that is especially difficult to settle conclusively, given that the syntactic positions, and “argument structural” and aspectual (viz. telicizing) functions of the two
alternatives are either identical, or extremely difficult to tease apart. For instance, verbs of motion that lexically require a goal locative can easily be analyzed as being complemented by a resultative Small Clause with a goal locative in its predicate position. Much, if not all, depends on the specific view one adopts regarding what it takes for a construction to be resultative. According to Parsons (1990), Kratzer (1995), and Rothstein (2001) (a.o.), secondary predicate adjectives and PPs introduce eventuality arguments. On a widespread conception of resultatives, also adopted here, one of their defining properties is that they uniformly involve a complex event structure made up of (at least) two subevents $e_1$ and $e_2$, where $e_2$ is an end state within the complex event.29 This is a crucial distinctive property that will be exploited in the discussion of what argument structural status incorporated goal locative particles can or cannot have.

3.3 Targets of goal locative particle incorporation
I will now demonstrate that Hungarian locative particle incorporation can apply whether or not the locative particle is a resultative predicate, and whether it is a complement or it is an adjunct of the verb.

(i) It is characteristic of resultative predicates, in line with generalizations in the vein of the Argument-Per-Subevent Condition in (18) above, that they introduce their own argument when combining with an unergative verb (see (25), from Zeller (2001); as well as (19) and (20b,c) above).

(25) a. Peter spülte (*das Fett)
   P-nom washed the grease-acc
b. Peter spülte *(das Fett) ab
   P-nom washed the grease-acc off

When augmenting a transitive verb with an optional implicit argument (like read), the argument cannot be left implicit in resultative particle constructions of the Germanic type, but must be syntactically realized; see (26).

(26) a. John read (the passage)
   b. John read *(the passage) out

Optional implicit arguments are not forced to overtly appear in examples of the locative incorporation construction in Hungarian (LIC, for short), see (27b,d). This suggests that in these examples the goal locatives do not
function as secondary predicates. This property is not limited to the particle locative incorporation construction (Prt-LIC), but is exhibited in the lexical locative incorporation construction (Lex-LIC) as well, see (27d’). Lex-LIC is an alternant of Prt-LIC, where, in the absence of a locative particle, a lexical locative phrase is “incorporated” to the VM position (more on this alternation in Section 4 below). As the locative particles / lexical locative phrases at hand are clearly not selected, it is safe to conclude that the goal locative particles in these examples originate as adjuncts.

(27) a. János írt (valamit)
   J-nom wrote something-acc

b. János hozzá írt (valamit) (a cikkhez)
   J-nom to.it wrote something-acc (the article-to)
   ‘John wrote (something) to the article.’

c. János énekelt (valamit)
   J-nom sang something-acc

d. János rá énekelt (valamit) (a rögzítőre)
   J-nom onto.it sang something-acc (the answerphone-onto)
   ‘John sang (something) on the answerphone.’

d’. János a rögzítőre énekelt (valamit)
   J-nom the answerphone-to sang something

That this pattern is not related to some property of these verbs is evidenced by the fact that it is not exhibited by the very same verbs when they combine with some other particles:

(28) a. János fel írt *(valamit)
   J.-nom up wrote something-acc
   ‘John wrote something down.’

b. János el énekelt *(valamit)
   J.-nom away sang something
   ‘John sang something.’

Particles that require the presence of a noun phrase are, then, generated as resultative secondary predicates:

(29) a. János pakolt (valamit)
   J.-nom packed something-acc

b. János bele pakolt *(valamit) (a bőrőndbe)
   J.-nom into.it packed something-acc the suitcase-into
A second condition concerns the actual entailment of the final state itself. In the case of telic predicates of perfective sentences, reaching the endstate is strictly entailed in a resultative construction, while this is not necessarily so otherwise. Consider the following examples:

(30) a. Mari hozzá vágta az esernyőt (a falhoz)
   M-nom to.it fling-past-3sg the umbrella-acc (the wall-to)
   ‘Mary flung the umbrella at the wall.’

   b. János rá lőtte a nyilat (a fatörszre)
   J-nom onto.it shot-3sg the arrow-acc (the tree.trunk-onto)
   ‘John shot the arrow at the bird.’

While (30a) cannot be continued with “but the umbrella did not hit the wall,” (30b) can be extended naturally by “but the arrow did not hit the tree trunk.” Although this is no evidence that (30a) involves a resultative construction (as the entailment may also be of lexical semantic or of pragmatic origin), it does confirm that the goal PP in (30b) is not a resultative secondary predicate. On account of the selectional relation between the verb (lő ‘shoot’) and the choice of the P head (–ra ‘onto’) the goal locative particle must be generated as a(n optional) complement.

Not only the goal particle can be a complement: the same is available to lexical goal locatives in the Lex-LIC as well. For instance, while (31a)

(31) a. János tegnap reggel a munkahelyére ment
   J-nom yesterday morning the workplace-onto went-3sg
   ‘John went to his workplace yesterday morning.’

   b. Mari a falhoz vágta az esernyőt (cf. (30a))
   M-nom the wall-to fling-past-3sg the umbrella-acc
   ‘Mary flung the umbrella at the wall.’

In a resultative construction, the (predicate-external) subject of the Small Clause should be non-transparent to subextraction. (32a) exemplifies the degradation in acceptability due to subextraction from an ordinary Small Clause subject (see Kayne 1984), and (32b) does the same for a resultative Small Clause. Crucially, then, (33a) apparently involves subextraction from a resultative Small Clause subject. It can be inferred that the goal particle in (33a) originates as the predicate of this Small
Clause. Compare the degradedness of (33b), which involves subextraction from an external argument subject. Subextraction from (external) subjects sharply contrasts with (34), where the accusative noun phrase in the Prt-LIC is a plain complement, from which subextraction is permitted\(^\text{32}\) (internal argument subjects pattern with complements).

(32) a. ??Which politician do you consider [a photo of __ ] unattractive?
   b. ??Which politician did they boo [an imitator of __ ] off the stage?

(33) a. \*Melyik politikussal fogsz bele könyörügni [egy interjút __ ] (a kötetbe)\?
   ‘*Which politician are you gonna beg an interview with into the volume?’
   b. \*Melyik politikussal okozott [egy interjú __ ] nagy botrányt?
   ‘*Which politician did an interview with cause a big scandal?’

(34) \(\text{\textcircled{c}}\) Melyik politikussal fogsz rá tenni [egy interjút __ ] (a honlapodra)\?
   ‘Which politician are you going to place an interview with on your homepage?’

(iv) A classic test that event decompositionalists use to detect a result or endstate subevent is selective modification by adverbial elements. One such adverbial with a by now respectable career is the adverb again. Again is known to have a repetitive and a restitutive reading, where the latter refers to the case of a complex event, of which again selectively modifies the result or endstate subevent (see von Stechow 1995, 1996).\(^\text{33}\)

Consider the contrast in (35) below, where újra ‘again’ is applied first to an unaccusative predicate and then to an unergative predicate, both in the Prt-LIC. (36) exemplifies a parallel contrast in the Lex-LIC, employing a transitive verb in (36a) and an unergative in (36b) (the bracketed text given above the examples provides a suitable context for a restitutive reading).\(^\text{34}\)

(35) (The dog was hidden into a pit. It climbed out, and then…)
   a. Bele zuhant újra a gödörbe (repetitive/restitutive)
into.it fell-3sg again the pit-into
‘It fell into the pit again.’

b. Bele ugrrott újra a gödörbe (repetitive/#restitutive)
   into.it jumped-3sg again the pit-into
   ‘It jumped into the pit again.’

(36) (John took the lift upstairs, and he came down. The lift then broke down. As he was called for by his boss, …)

a. János az emeletre vonszolta magát újra
   J-nom the upstairs-onto dragged-3sg himself-acc again
   ‘John dragged/walked himself upstairs again.’
   (repetitive/restitutive)

b. János az emeletre szaladt újra
   J-nom the upstairs-onto ran-3sg again
   ‘John ran upstairs again.’
   (repetitive/#restitutive)

As these examples show, while the restitutive reading is available for the unaccusative and for the transitive verb in both construction subtypes, it remains inaccessible to unergative verbs, again in both constructions. Assuming that these judgments can be generalized, the facts follow insofar as the resultative construction is obeys the generalization that has come to be called the Direct Object Restriction (Simpson 1983, Levin and Rappaport-Hovav 1995: 34):

(37) Direct Object Restriction (DOR)
   A resultative phrase may be predicated of the immediately postverbal NP, but may not be predicated of a subject or an oblique complement.

Subjects of unergatives are base-generated as external arguments, and hence cannot serve as subjects of resultative secondary predicates, according to the DOR. (35b) and (36b) cannot have a resultative structure, whence no result- or endstate for again to restore. The unaccusative underlying object and the transitive object in (35a) and (36a), respectively, are possible subjects to be predicated of in resultative predication, as far as the DOR is concerned. At least in (35a) and (36a), it appears, this option is realized.

Different verb subclasses within the same general class behave differently in the Prt-LIC with regard to modification by again. For instance, the transitive verbs köp ‘spit’ and tesz ‘put’ are contrasted
minimally in (38a,b): while the latter seems to combine with a resultative substructure, the former resists such a construal. Just as in Italian the membership in the class of verbs of motion that directly embed a resultative substructure versus in the class that do not is, according to Folli (2002) and Folli and Ramchand (2005), a matter of idiosyncratic lexical specification, it is also apparently largely idiosyncratic in Hungarian.

(38) (The boy found a cherry pit on a plate. He put it in his mouth, and…) 
   a. Rá köpte a meggymagot újra a tányéra onto.it spit-past-3sg the cherry-pit-acc again the plate-onto ‘He spit the cherry pit onto the plate again.’ (repetitive/#restitutive) 
   b. Rátette a meggymagot újra a tányéra onto.it the cherry-pit-acc again the plate-onto ‘He put the cherry pit (back) onto the plate again.’ (repetitive/restitutive) 

Since köp ‘spit’ does not license a resultative Small Clause, and given that it does not select a goal locative lexically, it can be inferred that the goal PP in (38a) must be an adjunct. 

(v) That the locative element to be moved into VM can be a base-generated complement is corroborated by examples of incorporated stative locative particles:

(39) a. Nála alszik Marinál néha by.her sleep-3sg M-by sometimes
   a’. Marinál alszik néha M-by sleep-3sg sometimes
   ‘He sometimes sleeps at Mary’s place.’
   b. Rajta állt az érmén, de nem vette észre on.it stood-3sg the coin-on butnottook-3sg mind-onto
   b’. Az érmén állt, de nem vette észre the coin-on stood-3sg butnottook-3sg mind-onto
   ‘He was standing right on the coin, but he didn’t realize that.’
   c. Vele élt Marival öt évig with.her lived-3sg M-with five year-for
   c’. Marival élt öt évig M-with lived-3sg five year-for
   ‘He lived with Mary for five years.’
The stative locative particles above cannot be construed as resultative secondary predicates, as the predicates in (39) are all interpreted as atelic (recall the assumption made above that resultatives must turn activity verbs into telic accomplishments). We can draw the following main conclusions from the results of the tests in this subsection. First, in both versions of the LIC in Hungarian (Prt-LIC and Lex-LIC) the goal locative element moved to the VM position can be generated as a resultative secondary predicate. Second, this movement is not limited to resultative secondary predicates, but can also involve direct modifiers of the verb. And third, among direct modifiers of the verb, not only complements, but also adjuncts can be raised to the “incorporated” position. Note that the fact that adjunct locative particles can also be “incorporated” into the VM position strongly argues against a head-movement analysis of particle incorporation in Hungarian, and instead favors an XP-movement account. Apparently, no special syntactic restrictions need to be added over and above the general c-command condition on the XP-movement to the VM position in the schematic structure proposed in (17) in Section 2.4 above that would limit this movement to elements belonging to a specific subclass of functions/positions.

Having mapped the elementary syntax of the locative particle incorporation construction, in the next section we take up the issue of the semantic interpretation of “incorporated” locative particles.

4. Semantic incorporation of locatives

4.1 Generalizing semantic incorporation

I argue in this section that the interpretation of incorporated locative particles is closely related to their syntactic movement to the (low) VM position. Recall that – following a large body of literature on Hungarian – I have been assuming that the individual subclasses of elements collectively referred to as ‘verbal modifiers’ occupy one and the same position (see Section 2.1). A prominent view of one subclass of VMs, namely, pseudo-incorporated bare nominals is that they are semantically incorporated into the verb (e.g., Farkas and de Swart 2003; Bende-Farkas 2002). Farkas and de Swart (2003) (F&S) argue that not only is a bare nominal in the VM position semantically incorporated, but a bare nominal can only appear in the VM position. Accordingly, F&S suggest that the interpretive rule of semantic incorporation is tied to the VM position in Hungarian, the reason why full DPs are uninterpretable (hence, unavailable) in this position.
Developing this view of the distribution of nominals in the language, I would like to propose that adpositional locative particles and lexical locatives that occupy the VM position – more specifically, the low, intermediate VM position – are interpreted as semantically incorporated. I tentatively assume that an even stronger generalization holds: any element in the low VM position is interpreted as semantically incorporated into the verbal predicate.\(^{37}\) Semantic incorporation at the vP-internal VM position \([\text{Spec,PredP}]\) is the syntax-semantics interface ‘tool’ that this language uses to form “complex predicates” in the syntax.\(^{38}\)

A popular view of semantically incorporated singular bare nominals is that they introduce a predicative restriction (a property), but no discourse referent. Both F&S and Chung and Ladusaw (2004) propose that semantic incorporation involves a special mode of semantic composition. This is Unification in F&S’s DRT-based model (see Bende-Farkas 2002 for another unification-based account), and Restrict in Chung and Ladusaw’s type-theoretical analysis. For ease of exposition, here I employ this latter, type-theoretical formalism. Restrict (similarly to F&S’s unification) applies only to predicative elements (following F&S, I will assume that this mode of composition is tied to the (lower) VM position).\(^{39}\) (40) is an abstract example of how Restrict composes a transitive verb with a bare nominal object: via predicate conjunction, identifying the argument of the common noun with an argument of the verb.

\[(40) \text{Restrict} \left(\lambda y \lambda x [V'(y)(x)], \lambda z [\text{NP}'(z)]\right) \rightarrow \right.
\[\lambda y \lambda x [V'(y)(x) & \lambda z [\text{NP}'(z)](y)] = \lambda y \lambda x [V'(y)(x) & \text{NP}'(y)]\]

At the heart of this treatment is the property of Restrict that it composes a predicate with an argument without saturating the relevant argument position of the verb (Unification is similar in this regard). In the simplest case, the argument variable is existentially closed.

Assuming such an approach to semantic incorporation, what does it mean for a locative expression to be semantically incorporated into the verbal predicate? The crucial point is that the mode of composition involved in semantic incorporation must be applicable independently, to a certain degree, of the precise type of the elements involved. Just as the verb involved in the operation may be unaccusative \((e,t)\) or transitive \((e,(e,t))\), the argument it composes with may also be of different types: the crucial property of the argument in semantic incorporation is that it is interpreted as a predicate. A common noun is a predicate of individuals. I suggest that
the adpositional particle is also interpreted as a predicate in the (low) VM position, viz. as a predicate of paths.

Let us look at a simple example to see how this can be implemented. Assume that the head of the adpositional particle hozzá 'to her/him/it' (namely, -hoz) is interpreted as a relation between paths and individuals given in (41a), where ES is a function that assigns each physical entity its location in space (its eigenspace), and AT and TO are spatial functions (see Zwarts and Winter 2000). Specifically, TO is a relation between a place and paths (that lead to the place). The third person pronoun pro in the particle contributes a type e individual, whose value – to keep the example simple – is determined by the discourse context to be j (=John). The interpretation of the particle hozzá is then a predicate of paths, as given in (41b). The verb of motion megy ‘go’ is represented as a predicate with two arguments: a subject and a path (following Krifka (1998: 224ff), for simplicity’s sake, in assuming that all motion verbs have a semantic path argument; I ignore event arguments here). (42b) shows the application of Restrict to the particle in (41b) and the verb in (41c), which is what happens when the former composes with the latter, as in (42a): Restrict conjoins the two predicates, and identifies the path argument of TO with the path argument of go'.

(41) a. \[
[[[\rho -hoz]]] = \lambda y\lambda \pi [TO(AT(ES(y)), \pi)]
\]
b. \[
[[[\rho pro hozzá]]] = \lambda \pi [TO(AT(ES(j)), \pi)]
\]
c. \[
[[megy]] = \lambda \pi'\lambda x [go'(\pi')(x)]
\]

(42) a. hozzá megy
to.him goes
b. Restrict (\lambda \pi'\lambda x [go'(\pi')(x)], \lambda \pi [TO(AT(ES(j)), \pi)]) \rightarrow \\
\lambda \pi'\lambda x [go'(\pi')(x) & \lambda \pi [TO(AT(ES(j)), \pi)](\pi')] = \\
\lambda \pi'\lambda x [go'(\pi')(x) & TO(AT(ES(j)), \pi')]
c. Jánoshoz megy
John-to goes

As this example illustrates, semantic incorporation of locative particles works in much the same way as semantic incorporation of singular bare nominals: the locative particle is interpreted as a predicate that is conjoined with the verbal predicate, the former restricting a variable within the latter. The interpretation is the same if instead of a locative particle, it is a lexical locative that appears in the (low) VM position, as in (42c).
This analysis can, in principle, be extended to any element occupying the (low) VM position. The idea, then, is that the (low) VM position is targeted by predicative elements in order to be interpreted in this position via semantic incorporation. This conception is similar to a lexicalist “complex predicate” view of VM+V combinations, as well as to the view of VM elements expressed in É. Kiss (2005, 2006a, d), who describes them as being predicative, bearing a [+pred] feature to be checked in the VM position. In difference to the latter view, on the present account movement to the (low) VM position is not driven by checking of a formal feature, but rather by the need for the predicative VM element to be interpretable (which is achieved through semantic incorporation).

4.2. Evidence for semantic incorporation of pseudo-incorporated locatives

Let us turn now to some support for the claim that the locative element in the VM position is semantically incorporated. Strong quantifiers are known to be excluded from semantic incorporation (they are not interpreted as predicates). Indeed, they are unable to appear in the VM position as locatives (or as any other PPs or suffixed DPs), see (43a). Note that the locative P may take a definite DP (headed by a definite article, or by a proper name) as its Ground argument (see (43b), and (31b) above). This is because the DP Ground argument can reduce to (the eigenspace of) an individual as an argument of P (more precisely, as an argument of the Place adposition translated in (41a) above as AT). This is not available to a strong quantifier, which, by contrast, eventually turns the whole PP into a strong quantifier.

(43) a. *Mari mindenhez vágya az esernyőt (cf. (31b))
   M-nom everything-to fling-past-3sg the umbrella-acc
   ‘Mary flung the umbrella at everything.’
   b. Mari a fiúhoz / Jánoshoz vágya az esernyőt
   M-nom the boy-to J-to fling-past-3sg the umbrella-acc
   ‘Mary flung the umbrella at the boy/ at John.’

Second, locative PPs in the (low) VM position can contain a bare nominal as the Ground. That this is not simply because such phrases are in fact suffixed nominals (contrary to what was argued in Section 2 above) rather than true PPs, is suggested by the fact that non-suffixal, morphologically free locative adpositions (illustrated in (3) above) behave the same way, see (44a). Third, incorporated locative PPs cannot have wide scope, but must
have narrowest scope, just like incorporated bare nominals. For instance, (44a) below, containing a negation (which attracts the verb from behind the VM, cf. (6)) as well as a deontic modal suffix on the verb, can mean neither that ‘There is a wall such that it is not the case that I can fling the umbrella at it,’ nor that ‘It is not the case that there is a wall such that I can fling the umbrella at it.’ The existential scope of the PP is narrowest. The same is apparently true of PPs that contain a singular indefinite headed by an indefinite article: when such an indefinite in the VM position is interpreted as semantically incorporated, it must also take narrowest scope (see (44c)).

(44) a. János munka után nézett
   J-nom work after look-past-3sg
   ‘John looked for work.’
 b. Nem vághatom falhoz az esernyőt
    not fling-poss-1sg wall-to the umbrella-acc
    ‘I’m not gonna fling the umbrella at a wall.’
 c. Nem akarom (egy) szerelőre bízni a munkát
    not want-1sg (a) plumber-onto trust-inf the job-acc
    ‘I don’t want to get a plumber to do the job.’

Finally, Ground nominals inside PPs in the VM position are number neutral, in the same way as incorporated bare nominals, see (45a). As a consequence of the number neutrality of incorporated locatives, the lexical locative ‘associate’ phrase optionally co-occurring with an incorporated singular locative particle (cf. Section 2.1) can be either singular or plural. The latter case is illustrated in (45b).

(45) a. Bélyegre cseréltem az akváriumot
    stamp-onto exchanged-1sg the fishtank-acc
    ‘I swapped the fishtank for stamps.’
 b. János hozzá érintett egy műszert a vezetékekhez
    John to.it touched-3SG an instrument-ACC the wire-pl-to
    ‘John touched an instrument to the wires.’

In this section I have provided support for the claim that locative elements appearing in the VM position are interpreted as semantically incorporated, similarly to bare nominals. This required a generalized notion of semantic incorporation, which can be coarsely defined as predicate conjunction concurrent with variable co-identification. This generalized
rule of interpretation can potentially apply to syntactically complex predicates, which is precisely what is required on the syntactic analysis of the locative incorporation construction presented in Section 2 above (esp. Section 2.3), according to which “incorporation” in the VM position involves the syntactic composition of a VM element with a complex verbal constituent subsuming VP (see also Note 40).

Before concluding this section, let us briefly come back to the doubling construction illustrated in (45b). The very fact that a lexical associate is available for the preverbal locative particle may be interpreted as further evidence that the particle is semantically incorporated. This is because, as noted above, semantic incorporation itself does not eliminate the relevant argument variable of the verbal predicate, hence the valence of the verbal predicate remains unaltered. Polysynthetic languages make regular use of this option, doubling their internal argument incorporee by a (more specific) adjunct nominal, as illustrated below from Caddo (this is Mithun’s (1984) “classificatory” type of incorporation; see also Rosen (1989)).

(46) kassi’ hāh-’ič’à-sswi-sa’
    bead  prog-eye-string-Prog
    ‘She is stringing beads.’

Appearances notwithstanding, the syntax of Hungarian locative doubling construction, as I argue in the next section, is different from that of classificatory incorporation. In the remainder of the paper, I sketch a syntactic analysis of the relation between incorporated locative particles and their lexical associates.

5. Locative doubling at the syntax/PF interface

5.1 Differences from classificatory incorporation
Let us briefly take stock of the properties that make the Hungarian locative doubling construction appear to be analogous to classificatory incorporation. A central characteristic feature of the locative doubling construction in Hungarian analyzed in the foregoing sections and the classificatory incorporation construction is that they both involve the syntactic “incorporation” of some element (even though “incorporation” is pseudo-incorporation in Hungarian), which is interpreted as semantically incorporated. Another property that locative doubling and classificatory incorporation share is that an ‘associate’ phrase may optionally appear. A
Further common feature is that the associate is a semantic argument (see Chung and Ladusaw 2004), and it is related to the same argument slot as the incorporated element: if this were not the case, uninterpretability would ensue (furthermore, in goal locative doubling, the event would inconsistently be doubly delimited). In both constructions the associate is semantically more specific than the incorporated element (‘bead’ in (46) is more specific than ‘eye,’ which stands for ‘small, round object’; ‘to the wire’ in (2a) is more specific than ‘to it’). Beyond this point, however, no shared properties are observed.

First, classificatory incorporation in polysynthetic languages allows feature mismatches (Baker 1995: 121–132). As for adposition incorporation, incorporated adpositions are often morphologically distinct from adpositions heading non-incorporated lexical modifier phrases (Baker 1988: 236ff). In locative doubling of adpositional phrases in Hungarian, the adposition heading the incorporated particle must be morphologically identical with the adposition heading the lexical associate, as illustrated below.

(47) a. Hozzá érintettem a műszert a vezetékhez/*-re/*-be
to.it touched-1sg the instrument-acc the wire-to/*-onto/*-into
b. Neki ütköztem a falnak/*-ba/*-hoz
   against.it bumped-1sg the wall-against/*-into/*-to

Second, classificatory incorporation typically involves incorporation of nouns. Doubling in Hungarian is unavailable for incorporated nouns. If doubling of adpositional phrases were analyzed as classificatory incorporation, it would remain unclear why nouns cannot participate in the same construction.45

Third, Chung and Ladusaw (2004) argue that the associate phrase involved in classificatory incorporation is a syntactic adjunct. Let us consider subextraction facts in order to test whether the same is true of lexical associates of incorporated locative particles in Hungarian. If the lexical associate is an adjunct, subextraction from it is predicted to be unacceptable. This is borne out in some cases, such as (47a). However, in some other cases, subextraction appears to be licensed (see (47b) and (47c)). Some lexical associates are adjuncts, but this is not uniformly the case, contrary to the prediction of a classificatory incorporation analysis.

(47) a. *Melyik politikussal érte menni
   which politician-with want-2sg for.it go-inf
a könyvtárba   [egy interjúért __ ]?
the library-into an interview-for
‘Which politician do you want to go to the library for
an interview with?’
b. (‘)Melyik politikussal akarsz bele szőni
which politician-with want-2sg into.it weave-inf
valami meglepőt      [egy interjúba __ ]?
something surprising-acc an interview-into
‘Which politician do you want to smuggle something surprising
into an interview with?’
c. Melyik politikussal akarsz bele kezdeni
which politician-with want-2sg into.it begin-inf
[egy hosszabb interjúba __ ]?
a long interview-into
‘Which politician do you want to start a long interview with?’

We have reasons to conclude, then, that the structure of doubling in the
adpositional locative particle incorporation construction cannot generally
be analyzed as doubling by an adjunct.

5.2 The structure of locative particle doubling in Hungarian

Given the syntactic analysis of incorporation in Hungarian presented in
Section 2 in terms of phrasal movement, an alternative is to assume that the
particle and the lexical associate are generated as a single constituent, from
which the particle gets extracted to the VM position. A stranding account of
this extraction involves subextraction from the base-generated constituent.
The subextracted constituent may then be a complement of some functional
head, as in some prominent stranding approaches to Q-float, clitic doubling,
or resumption, or a specifier of some extended projection of the adposition.
The immediate difficulty for such an account is the fact that the particle
itself is apparently the exponent of a full-fledged PP matching the associate
PP: it has a pro possessor as its Ground, and it is headed by the very same P
head as its lexical associate. A further problem is that, as demonstrated in
the preceding subsection, some lexical associates are adjuncts, from which
subextraction should be impossible. I will therefore propose a different
syntactic analysis, one in which the particle and its lexical associate derive
from a single constituent, which the particle is related to by movement, but
crucially, not by subextraction. This is possible if the particle is analyzed as
a reduced copy of the lexical locative itself. This approach will be briefly
elaborated briefly below.
By way of contrast, an analysis in terms of phrasal subextraction is in fact plausible for a different locative particle construction where the incorporated particle is associated with a lexical PP, illustrated in (48a–b). The adverbial particles of this construction may be located in a specifier of a functional projection above PathP dominating the directional P and its Ground (for PathP, see Koopman (2000)), as Svenonius (to appear) suggests for English (Svenonius places them in the specifier of a deixis phrase); see (49a). One may take these particles to further restrict the denotation of the lexical locatives by locating the spatial entity they denote with regard to some deictic or logophoric spatial entity accessible in the discourse. It seems equally possible, however, to construe the particles themselves as being ‘further specified’ (i.e., denotationally restrict) by the lexical locatives, as in classificatory incorporation, or in the case of the doubling of adpositional particles. Syntactically, then, the lexical locative may be analyzed as an adjunct to the particle, where the latter would correspond to the core adpositional phrase (a PathP), see (49b). This would also explain why it is the particle that undergoes incorporation, rather than the lexical locative: the latter is only a modifier of the former, which is the core PP. The same fact is less natural on (49a), where it is apparently accidental that it is a functional specifier of the PP that undergoes “incorporation” to the VM position. The analysis in (49b), in contrast to (49a), is also able to explain why adpositional locative particle incorporation is unavailable in the presence of an adverbial particle, as attested by (48d). This falls out if closeness is relevant to “incorporation” to the VM position. The large PathP in (49b) is closer to the VM position than the adjunct of the contained PathP. If this larger PathP is attracted, then what enters a movement dependency is a PP ultimately projected from the particle le ‘down.’ This particle is adverbial and not adpositional, hence it cannot induce the doubling movement pattern that would give rise to a reduced adpositional PP in the VM position.

(48) a. *Rá tette *le az asztalra a könyvet
    down put-past-3sg the book-acc the table-onto
    ‘He put down the book (on the table).’

b. *El ment (a boltba)
    away went-3sg the shop-into
    ‘He went to the shop.’

c. Az asztalra tette a könyvet (*le) (cf. (48a))
    the table-onto put-past-3sg the book-acc down

d. *Rá tette *le az asztalra a könyvet
    down put-past-3sg the book-acc the table-onto
onto.it put-past-3sg down the table-onto the book-acc

(49) a. \[DeixP down Deix [PathP the table-onto]]
b. \[PathP [the table-onto] [PathP down]]

On either account ((49a) or (49b)), incorporation of the particle is subextraction from a complex PP.

Returning now to doubling in adpositional locative particle incorporation, I propose that instead of involving subextraction, it is derived by applying movement to the lexical locative phrase itself. At the PF interface, the link of the resulting chain in the VM position is phonologically interpreted as a reduced copy of the lexical locative PP, while the base occurrence is pronounced in full. On this view the construction is yet another case of a movement chain with more than one overt occurrence (see, among others, Pesetsky 1998; Hornstein 2000; Fanselow and Cavar 2000, 2002; Richards 2001; Nunes 2001, 2004). The spell-out pattern of the chain formed by the particle in the VM position and the double in its base position is essentially similar to the pattern found in \textit{wh}-scope-marking constructions that fall under McDaniel’s (1989) “direct dependency” approach, where a reduced \textit{wh}-phrase appears in the head position of a \textit{wh}-chain (see Cheng 2000 for a recent reinterpretation of the “direct dependency” approach in terms of multiple overt links of a single chain).

The (low) VM position is a strong position (i.e., Pred bears an EPP/OCC/Edge-feature), which is interpreted as instruction provided by syntax for the PF interface that the position must be filled by an overt category. As Landau (2007) argues, such a feature is satisfied if at least one element is spelled out within the phrase that is raised to the strong specifier position: the head of the category. One way of meeting this requirement is to spell out the whole category in the strong position, i.e., to apply ordinary overt category movement. Another way of satisfying the PF-requirement of the strong VM position is what is involved in the “light-headed” chain witnessed in clauses with an incorporated particle and a lexical associate. I assume that the spell-out pattern of the “light-headed” type of chains at issue is defined by a search for minimized overt pronunciation in the head link of the chain. This pushes for deleting everything else than the head of the PP in the head of the “incorporation” chain. Then, by the pressure to maximize deletion in the entire chain (up to Recoverability), deletion is ideally complementary in the two chain links, i.e. in the base position it is precisely and only the head of the PP that should not be spelled out.
The spell-out pattern exhibited in the incorporation chain at issue, departs from this ideal case of “light-headed” chain, however. The reason is essentially morphological: the adpositional head is suffixal, functioning as the exponent of Case. Due to this latter property, P cannot be deleted on its own in the base occurrence, as that would leave behind an un-Case-marked DP in the base position. On the other hand, in the VM position the suffixal P head cannot remain unsupported: deleting everything else but P would leave behind a stranded affix, leading to crash at PF. Recall from Section 2.1 that the actual form of “incorporated” particles testifies that the complement position of the P is realized as pro. On the assumption that the construction is a “light headed” chain as proposed here, this pro must be the result of the maximal degree of deletion of the complement that still satisfies the morphological requirement of the suffixal P that it should have a host. Namely, the lexical features of the possessor DP have been deleted, leaving behind the grammatical feature bundle of the category. Covert pro is precisely that: a DP with only grammatical features of person and number. The morphological realization of the PP in the VM position, assuming a Distributed Morphology framework, will be that of an adposition with a pro possessor.

This account meshes well with the fact that although pronominal complements of suffixal Ps can be realized as overt pronouns in the language, this is impossible in the VM position:

(50) *Az orvos ōhozzá érintett egy műszert
the doctor-nom he-to-poss3sg touched-3SG an instrument-ACC
Jánoshoz
John-to
‘The doctor touched an instrument to John.’

An overt pronoun would be more than what is minimally required to remain in the upper PP copy.

Recall that what licenses the deletion of the privative plural feature too off the covert 3rd person pro complement of P in the VM position is the fact (noted in Section 4.2 above) that semantically incorporated (pro)nominal elements in the VM position are interpreted as number neutral. This is the reason why deletion of the privative plural feature off the 3rd person pro complement of P yields no number conflict when it co-occurs with a plural lexical associate. Grammatical features are not normally removed by deletion for spell-out purposes. Nevertheless here this additional option of deleting a grammatical (or formal) feature in the upper
copy is made available by semantic incorporation. Accordingly, a plural lexical associate can be associated with either a singular or a plural pro within the incorporated PP: 49

(51) \textit{Az orvos hozzá(juk) érintett egy műszert}
\textit{the doctor-nom pro-to-poss3sg(pl) touched-3sg an instrument-acc}
\textit{a gyerekekhez}
\textit{the child-pl-to}

‘The doctor touched an instrument to the children.’

A distinct prediction of the proposed syntactic analysis of the construction is that the lexical associate can appear in any position that was identified as a possible base position of the incorporated locative particle in Section 3. Namely, it is predicted to be able to appear as an adjunct, as a complement, or as a resultative secondary predicate. As pointed out in the preceding subsection, (47a) exemplifies an adjunct lexical associate phrase, which resists subextraction. Complement locatives are expected to allow wh-movement out of them, which is what we find with the lexical locative associate in (47c) (that it is a complement is corroborated by the selectional relation holding between the verb and the P head of the lexical locative expression). As Moro (1997: 124) shows, subextraction from resultative secondary predicates is permitted:

(52) What did you wipe the table [clear of \_ ]?

As (47b) above illustrates, resultative lexical locative associates of incorporated particles are indeed transparent to subextraction (‘weave’ in (47b) is used as an intransitive verb, hence it embeds an ECM/raising-type resultative Small Clause). 50

6. Conclusion

In this paper I have argued for the following main claims. Pseudo-incorporation of locative particles in Hungarian involves phrasal movement to a position above VP and below vP, which I identified as the specifier of PredP. Particles are raised in a second movement step to a position outside vP, their final landing site in neutral clauses. The same syntactic derivation is available to lexical locative phrases. Locative particles and lexical locatives moved to [Spec,PredP] are semantically incorporated in that position. Locative elements, including goal locatives, may be raised here not only from a secondary predicate position (of a resultative Small Clause
complement), but also from complement and even from adjunct positions. Locative constructions involving a locative particle and a lexical locative associate phrase are of two varieties. In the case of adverbial locative particles, they involve subextraction from a constituent that initially contains both the lexical locative and the particle. In the case of suffixal adpositional locative particles, the particle and the lexical associate phrase are links in a “light-headed” movement chain, whose tail is spelled out in full and whose head link is realized at PF as an optimally reduced copy, corresponding to the adpositional particle itself.

The study of the syntax of locative particles has generally had its main empirical focus predominantly on Slavic and Germanic. The present paper is hoped to have provided a plausible syntactic analysis of the apparent incorporation of locative particles in Hungarian, a non-Indo-European language, seeking analogues and comparisons with the syntax of particles in Germanic and Slavic. In a broader perspective, the analysis offered here contributes both to the cross-linguistic investigation of the structure of particle constructions, and, from a different angle, to the comparative study of the syntax of phenomena generally discussed under the rubric of “incorporation.”

Notes

1 The set of “directional locatives” includes source and route (cf. Jackendoff 1983) locatives (e.g. from the office, and through the forest, respectively), as well as goal locatives, the chief concern of the present paper. Throughout this paper the general term “locative adverbial” is used as referring to the broader set including both directional and non-directional (stative) locatives (e.g. in the room). Note the unfortunate terminological inconsistencies in the general literature: the term “directional locative” is often used to refer to goal directional locatives, and the term “locative” is sometimes employed narrowly to designate stative locatives.

2 Many authors do not discriminate (non-directional) locative adverbials 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 (unaffected by focus-related movements) (e.g. Nilsen 1998; Cinque 2006, Ch. 6; Schweikert 2005).

3 Indexed labels “FP” and “F” are meant to be neutral with respect to assumptions about the specific categories projected inside the layered verb phrase. In some head-movement analyses, unlike in (1a), the particle 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 and Baker 2006).

The term “incorporation” is used here and throughout in a descriptive sense (without any implication of a particular structural analysis, such as Baker’s (1988)), on account of the fact that in a ‘neutral’ clause (see Note 5 for the term) the particles at issue are strictly left-adjacent to the verb, with which they form a phonological word.

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.

Functionally, the parallel between case affixes and adpositions seems sufficiently clear: loosely speaking, both mark “dependent nouns for the type of relationship they bear to their heads” (Blake 1994: 1, 7). Equally significant is the fact that case suffixes often derive historically from postpositions across languages, and this has been the case for adverbia_suffixes in Hungarian too.

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

This is by no means entailed by the surface complementary destruction, and indeed, the alternative view has been also defended. Notably, Csirmaz (2004) argues that although all VMs may occupy the same preverbal phrasal position in a neutral clause, some VMs (including verbal particles) may also incorporate into the verb instead (by head movement), as an 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 (2006c) for the view that they don’t.

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

VM climbing to a superordinate clause does not qualify as evidence that the VM position is a derived position in contexts without VM climbing (pace É. Kiss 2002, Sect. 3.6).

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).

Assuming a Small Clause based account of secondary predicates, as I do in this paper, the verb and the secondary predicate do not form a constituent on their own at the level of base structure. Embedded infinitival verbs, another type of VM, are also generated together with any arguments they have, rather than together with the superordinate verb that they end up left-adjacent to. VM-climbing constructions (see Koopman and Szabolcsi 2000) are a particularly striking case in point.

Adverbial particles in sentences like (i), expressing motion away from a source location, intuitively, in fact denote a path (from a source location) to a goal location (in (i), the space outside the eigenspace of the cupboard), hence they are goal adverbials.

(i) Ki vette a bögrét (a szekrényből)
    out(PRT) took-3SG the mug-ACC (the cupboard-from)
    ‘He took the mug from the cupboard.’

Farkas and de Swart (2003) cite (i) to illustrate that agentive subjects can also be incorporated. The verb sír ‘cry’ is not evidently agentive (an agentive adverb like deliberately renders (i) unacceptable), but even putting that aside, speakers I consulted find (i) either downright impossible or degraded at best (unless the preverbal nominal is interpreted as focus, cf. Fn. 8). I find (i) degraded as a neutral sentence, marginally acceptable only on a reading paraphrasable as ‘There was a child nearby, crying,’ i.e., as having existence in a location as its main assertion. Accordingly, 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 verbs,’ whose descriptive content is “backgrounded.” Significantly, agents of transitive and unergative verbs are plainly banned from the VM position, e.g. (ii).

(ii) *Gyerek énekelt egy dalt a közelben
    child-NOM sang-3SG a song-ACC the vicinity-in
    ‘A child was singing a song nearby.’

Recently, Surányi (2003) and É. Kiss (2008) have independently argued that, contrary to a received view of the syntax of the Hungarian predicate phrase (due to É. Kiss’s prior work on the topic), external arguments are base-generated higher than internal arguments in Hungarian too.

Hoekstra (1984) analyses 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.

Note that it is by no means universal for source directionals to be excluded from incorporation. The example below is from Russian.

(i) Ona otezhala ot nego
She escaped from him.'

If lexical prefixation in Russian is to be analyzed in terms of incorporation of the prefix by (head or phrasal) movement (see Svenonius (2004) and references therein), source locatives must be generated below the incorporation site in this language (i.e., when targeted by incorporation, the verb is in a higher position than in Hungarian). Source incorporation is cross-linguistically rather rare, however, compared to stative locative and goal incorporation (see Baker (1988: 240) for a Chichewa example), which relates to the relative height of source locatives in a VP-hierarchy (see Nam 2005; cf. also Ramchand 2008) (and in part, of course, to the general scarcity of complex natural predicates of a source+predicate conceptual composition).

18 According to Zwart (1993), who adopts a base SVO analysis for Dutch, complement Small Clauses in Dutch are raised to a PredP projection. For Koster (1994), [Spec,PredP] can house predicates (like predicates of Small Clauses) or nominal phrases that are part of complex predicates (e.g. de afwas ‘the washing-up’ in de afwas doen ‘the washing-up do’).

19 Paradoxically, É. Kiss (2006b) nevertheless does adopt an AspP projection encoding viewpoint aspect in her clausal hierarchy. Csirmaz (2006) also adopts a viewpoint AspP projection, where both perfective and imperfective (progressive) aspect are encoded. Although the idea of an AspP in the Hungarian clause encoding viewpoint aspect generally is perfectly feasible, the empirical evidence for its presence in all clauses is rather flimsy (see the cited papers). The only solid piece of evidence comes from word order in progressive sentences containing a VM element, where the verb must precede, rather than follow, the VM. But note that it is only an aspectual operator of the marked, progressive viewpoint aspect whose syntactic presence receives corroboration from this fact (although the silent time interval argument of the progressive (imperfective) operator (see Iatridou, Anagnostopoulou and Izvorski 2001) might also be claimed to occupy an (inner) specifier of FocP, rendering even a progressive AspP dispensable). The postulation of an AspP projection in perfective and in non-progressive imperfective sentences remains without substantial support, especially since these are the viewpoint aspect interpretations that are assigned by default to accomplishments and achievements, on the one hand, and states and processes, on the other (see Bohnemeyer and Swift (2004) for the computation of default viewpoint aspect in terms of ‘event realization’). Default viewpoint aspectual interpretation of the different situation aspectual classes of predicates can of course be overridden through coercion by temporal adverbials (see É. Kiss 2006b).

20 I deliberately leave it open here whether it is the VM itself that moves on to its vP-external surface position, or rather, it is the projection that hosts it in its
specifier (i.e., PredP) that raises there, preceded by movements that evacuate the VP, much in the spirit of Koopman and Szabolcsi (2000), and Koster (2000).

21 In the literature on Hungarian, E. Kiss (2005, 2006a) represents such a view. Although her account maintains that all incorporated verbal particles in the language are secondary predicates, it is not committed to a Small Clause based structural analysis of secondary predicates.

22 Explorations of the richly layered internal structure of verbal phrases, initiated by Larson’s (1988) seminal paper, have further blurred the purely structural differences between the two classes of modifiers. On a Larsonian approach, not all arguments originate as a sister to the verb, and not all elements in a complement/specifier position within a layered verb phrase are arguments of the verb—an issue I will be ignoring here.

23 Carrier and Randall (1992) call the latter “intransitive resultatives.” Hoekstra (1988) assigns a “raising” Small Clause structure to “control” type of resultatives as well, arguing that the verbs that these Small Clauses complement are of the intransitive variety. This view is defended more recently (at least for adjectival resultatives) by Kratzer (2005).

The argument of the embedding verb which the subject of the result state/location is identical with is typically the (underlying) direct object (the so-called Direct Object Restriction). Whether this is always the case is a matter of disagreement (see Simpson 1983; Levin and Rappaport Hovav 1995, 2001; Rothstein 2004; Wechsler 2005) for opposing views.

24 Fake reflexive arguments represent a hybrid case in that the argument of the result state is referentially controlled by that of the verb, however, it appears morphosyntactically as an independent overt argument expression (viz. the reflexive), placing the construction in the “ECM”/“raising” group. Levin and Rappaport Hovav (2001, and elsewhere) reduce the obligatory overt appearance of the reflexive to the Argument-Per-Subevent condition (= (17)). Referential control of a pronominal element within the subject of the resultative predicate is also attested, as in ‘x cried [x’s eyes] out.’

25 That the resultative predicate occupies a low position within the VP is evidenced by usual syntactic tests like do so replacement, VP-fronting, and VP-ellipsis.

The Small Clause analysis of resultatives has not remained uncontested even within the non-lexicalist camp, see e.g., Winkler (1997) for references to works where resultative predicates receive a non-Small Clause analysis, following the line of Williams (1983) and Rothstein (1985). See also Carrier and Randall’s (1992) critique of the Small Clause analysis of resultatives, as well as Dikken and Hoekstra’s (1994) reply.

26 Even though the unambiguously “ECM”/“raising” type of resultatives is less common in Hungarian than, say, in English, the language does exhibit (a variety of) resultative constructions (exemplified below), so the issue whether (and which of) its goal locatives are resultative predicates is real.

(i) János rongyosra/*sá járt a cipőjét
John-NOM ragged-SUBLAT/TRANSLAT walked the shoe-POSS3SG-ACC
‘John walked his shoes threadbare.’

(ii) János kővér/*re dermedt
John-NOM stone-TRANSLAT/SUBLAT froze
‘John froze stiff like a stone.’

(iii) János orvosnak/*sá/*ra tanul
John-NOM doctor-DAT/TRANSLAT/SUBLAT studies
‘John studies to become a doctor.’

The bound resultative morphemes can be construed as lexicalizing different flavors of the functional head projecting the Small Clause involved in resultative secondary predication (e.g., R(es) in Ramchand 2008). This can then explain why these suffixal elements do not “incorporate” into a VM position similarly to locative PPs (iv): this is because they are not adpositional categories at all.

(iv) *János rá járta a cipőjét (rongyosra)
John-NOM onto-POSS3SG walked the shoe-POSS3SG-ACC ragged-onto
that property. The proper account for this generalization must be left for another occasion.

(i) Mari Jánoshoz vágta az esernyőt  
M-nom J-to fling-past-3sg the umbrella-acc  
‘Mary flung the umbrella at John.’

(ii) Mari hozzá vágta Jánoshoz az esernyőt  
M-nom to.him fling-past-3sg J-to the umbrella-acc  
‘Mary flung the umbrella at John.’

Lexical semantic properties of the verb are another crucial determinant of the presence or absence of the entailment of the accomplishment of the endstate. Specifically, many predicates that (in Levin and Rappaport’s terms) involve “temporally dependent” (“co-identified”) subevents (e.g. tesz ‘put’) do not exhibit a comparable difference between the Prt-LIC and a Lex-LIC pattern: the endstate is entailed in both constructions. For other predicates with “temporally dependent” subevents, non-entailment of the endstate is due to the interference of modality. As noted by Krifka (1998: 228), predicates like megy ‘go’ (at least in uses exemplified by (31a)) require a modal representation: intuitively, in (31a), had it not been for some unexpected event, John would have arrived at the end location.

31 See Basilico (2003) for the contrast between verbal and non-verbal Small Clause complements in terms of subextraction from their subjects.

32 This is independent of the analysis of the particle in (34): it can be analyzed as a (second) complement, or as a secondary predicate in a resultative construction (the direct object could be assumed to control a PRO subject in the resultative Small Clause).

33 The again-test corroborates the view that accomplishments do not uniformly consist of two subevents (a process and a state); for instance, He read the book again only has a repetitive reading, while She opened the door again has both the repetitive and the restitutive readings.

34 The adverb again is placed in the postverbal domain to allow for both readings to be available in principle, on the assumption that for the restitutive reading again needs to adjoin to the Small Clause representing the “restituted” end state. When again precedes the preverbal locative particle or locative phrase, such an adjunction site is excluded in principle (compare von Stechow’s 1995, 1996 closely analogous data from German).

35 Folli and Ramchand (2005) argue that while run in English licenses a resultative structure (a ResP in their terms), the verb swim does not. As expected, the restitutive reading of again is indeed available for run, but not for swim, when modified by a goal PP.

(i) He ran to the library again
(ii) She swam to the shore again
Other tests of the same general type (involving selective adverbial modification of the result state) can be based on adverbs like *félig* ‘partway’ and *majdnem* ‘almost’ (see Krifka 1998; Rothstein 2004 for references). For reasons of space, these tests are not shown here.

Not only particle adjuncts, but also lexical locative adjuncts can undergo “incorporation” to the VM position (adjunct particles alternate with lexical adjuncts in the VM position). Another case of adjunct incorporation is the incorporation of *újra* ‘again’ (incorporation of such low adjuncts is found also in Greek (Rivero 1992); on adjunct incorporation in Chukchi see Spencer (1995)).

(i) János újra olvasta a cikkeket
   J-nom again read-past-3sg the article-pl-acc
   ‘John read the articles again.’

Note that this crucially does not entail that any element that comes to fill the (higher) surface VM position should be semantically incorporated. In particular, elements that appear in the surface VM position (specifier of TP in (17) above) without ever raising to the vP-internal VM position (specifier of PredP in (17) above) are expected not to be semantically incorporated. As suggested in Section 2.2, VM climbing targets the vP-external VM position of the superordinate verb, and bypasses its vP-internal VM position (if that is projected at all). Then, for instance, VMs that have climbed are not predicted to semantically incorporated into the superordinate verb. This seems desirable, as an element can normally semantically incorporate into a predicate of which it is a semantic modifier (argument, less typically, adjunct).

In this regard, the parallel of the Hungarian low VM position with Zwart’s (1993) and Koster’s (1994) [Spec,PredP] in Dutch is notable: Koster, following de Hoop (1992), argues that DPs occupying [Spec,PredP] in Dutch must be part of a complex predicate (e.g., *een klap geven*, lit. a blow give-inf, ‘to hit’). 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. Koster’s PredP licenses all prepositional (PP) objects as well as oblique objects; PredP in Hungarian doesn’t. 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.

Note that the view that locative particles are semantically incorporated into the verb (and are therefore predicative) is broadly consonant with lexicalist approaches in terms of the notion of “complex predicate” (see e.g., Komlósy 1994). On a lexicalist approach, the particle is a lexical component of a verbal complex, i.e., the verbal predicate. The present account in terms of semantic incorporation in effect generalizes the treatment of particles as belonging to the semantic verbal predicate...
to all (incl. lexical) locatives in the (low) VM position. For a lexicalist account of incorporated adpositional locative particles in Hungarian, see Ackermann (1987); for a critique of that account, see É. Kiss (1998a).

Semantic incorporation of a VM may in principle involve a predicative restriction on any variable contained in the verbal predicate. This is because the verbal predicate into which the VM semantically incorporates is not the verb itself, but the syntactically complex verbal constituent headed by the verb (Pred’ if V sits in Pred). On the syntactic analysis of the (low) VM position presented in Section 2 above, this is the constituent that the VM element in [Spec,PredP] is syntactically composed with. Accordingly, the VM may introduce a predicative restriction on a variable introduced by an internal argument, or even an adjunct or a secondary predicate, provided that the latter too are generated below inside PredP. It may also restrict the event variable introduced by the verb or by a secondary predicate (as in the case of ‘aspectual’ verbal particles like meg). If the VM raised to [Spec,PredP] is taken to leave a ‘trace’ that is interpreted as (an expression containing) a variable (see Lasnik (1999) for the view that A-movement does not leave a ‘trace’), then the semantically incorporated occurrence of the VM will restrict that variable inside the verbal predicate phrase.

To assume that the (low) VM position is filled because VM elements would not be interpretable in their base position leaves room for an unfilled [Spec,PredP] (found in clauses containing no VM element to be raised there), and also allows for VM elements that can be interpreted in some other way to remain in situ. This latter option is exemplified by cases like (i), where a VM element functions as an adjunct modifying (or specifying) another VM element, which gets raised to the VM position (see the discussion of (24a) for the notion of “weak” resultatives in Section 3.2 above).

(i) Be festettem a kerítést pirosra
    in painted-1sg the fence-acc red-sublat
    ‘I painted the fence red.’

Incorporated bare nominal indefinites introduced by the indefinite article behave identically, which suggests that they are also able to get semantically incorporated (pace Farkas and de Swart 2003). Accordingly, such indefinites are interchangeable in the VM position with bare nominals without any difference in meaning, apart from the singularity restriction contributed by the article, which is taken to be a cardinality predicate, restricting the cardinality of the set denoted by the nominal to be one; see (i). This is not surprising in light of the fact that in Hungarian nominals with the indefinite article can routinely function as both primary and secondary predicates, and as complements of existential verbs (cf. the notion of flexibility of the semantic type of different kinds of DPs, going back to Partee 1987, which allows the same (indefinite) DP to be interpreted either as predicative or as quantificational). I suggest that it is precisely the cardinality predicate interpretation of the indefinite article that makes it analogous to plural morphology.
within Farkas and de Swart’s (2003, Ch. 5) model: for them, a cardinality predicate introduces a presupposed discourse referent, which presupposition is accommodated by identifying it with the variable restricted by the semantically incorporated nominal predicate. This discourse referent may then pick up overt pronoun anaphora.

(i) \textit{Az orvos (egy) beteget őlát el a szobájában} (neutral)
\begin{align*}
& \text{the doctor-nom (a) patient-acc treat-3sg PRT the room-poss3sg-in} \\
& \text{‘The doctor is treating a patient in his room.’}
\end{align*}

Indefinite pronominal DPs like ‘somebody’ only have an existential quantifier meaning, with the bound morpheme \textit{vala-} ‘some’ interpreted as an existential determiner. Hence they are excluded from semantic incorporation, see (ii). When the bleached lexical element that \textit{vala-} ‘some’ morphologically combines with (e.g., -\textit{ki} ‘human/person’) is descriptively restricted by another lexical element, then \textit{vala-} ‘some’ is interpreted not as an existential determiner, but either as an indefinite article, or as null (cf. \textit{János egy érdekes valaki volt}, lit. ‘John an interesting somebody was,’ where \textit{vala-} ‘some’ cooccurs with the indefinite article, and \textit{valaki} ‘somebody’ in the nominal head position is interpreted as \textit{human(x)/person(x)}; see (iii).

(ii) \textit{*Az orvos \textit{valakit őlát} el a szobájában} (neutral)
\begin{align*}
& \text{the doctor-nom patient-acc treat-3sg PRT the room-poss3sg-in} \\
& \text{‘The doctor is treating somebody in his room.’}
\end{align*}

(iii) \textit{János \textit{valaki fontosat} őlát el a szobájában}
\begin{align*}
& \text{J-nom somebody important -acc treat-3sg PRT the room-poss3sg-in} \\
& \text{As the above observations extend to cases when the DP containing an indefinite article or \textit{vala-} ‘some’ is dominated by a PP (see (44c), as well as (iv–v)), I conclude that they too are semantically incorporated.}
\end{align*}

(iv) \textit{Az igazgató holnap valahova *(külföldre) utazik}
\begin{align*}
& \text{the director-nom tomorrow somewhere.to abroad-to travel-3sg} \\
& \text{‘Tomorrow the director is going somewhere (abroad).’}
\end{align*}

(v) \textit{Egy szerelőre bíztam a munkát.}
\begin{align*}
& \text{a plumber-onto trusted-1sg the job-acc} \\
& \text{‘I trusted the job to a plumber.’}
\end{align*}
\begin{align*}
& \text{A munka után meg hívtam őt egy italra.} \\
& \text{the work after PRT invited-1sg him a drink-to} \\
& \text{‘When the job was done, I treated him to a drink.’}
\end{align*}

43 In addition, given Mithun’s (1984) implicational generalization, if Hungarian had classificatory incorporation, it would be expected to also have Mithun’s Type III incorporation. Type III incorporation serves to maintain reference to known or incidental information across clauses. The first occurrence of a phrase in the discourse takes the form of an independent noun phrase, and subsequently a co-referential nominal appears as an incorporated noun. Incorporation thus maintains the identity of the noun without foregrounding it again as an independent sentential constituent. Type III incorporation, however, is absent from Hungarian.

44 This construction type too includes stative locatives, e.g.:
Neither (49a) nor (49b) excludes the raising of the whole complex PP to the VM position, which, however, is unattested (see (i)). On the analysis in (49b), but not on (49a), the lexical locative associates (qua adjuncts) are expected to be opaque to subextraction. This prediction that is difficult to test, however. This is because nominals that can serve as Ground typically do not take a complement in Hungarian (which one could then try to subextract): their argument, if they have one, is normally realized as a possessor. To the extent that (ii) is representative, it indicates that subextraction from the lexical locative is unacceptable. (ii) differs minimally from (i): it contains a particle of the suffixal adpositional variety. (ii) is only slightly degraded (similarly to (47b) above).

(i) *Le az asztalra / *Az asztalra le tette a könyvet
down the table-onto the table-onto down put-past-3sg the book-acc

(ii) *Melyik politikussal voltál ott [egy vitán __ ]?
which politician-with be.past-2sg there a debate-on ‘*Which politician did you attend [a debate with __ ]?’

(iii) *Melyik kollégával voltál benne [egy vitában __ ]?
which colleague-with be.past-2sg in.it a debate-in ‘Which colleague were you in (the middle of/having) a debate with?’

Particles like el ‘away’ or ki ‘out’ are taken to denote sets of paths that, informally speaking, go from a space that is at or inside the reference space, respectively, to some spatial position characterized by the property of not being at or inside the reference space. Thus, although such particles denote sets of paths that are defined with respect to a reference space from which they point away, they can be analyzed as functioning as goal locatives. This explains how they are able to telicize the event.

The syntactic relation of the incorporated particle and its lexical associate in the case of non-suffixal, morphologically free adpositions (e.g., után ‘after’ in (3a)) is analyzed in É. Kiss (1998c, 2002). For an alternative analysis of this class in terms of a “light headed” chain, see Surányi (to appear).

All that needs to be assumed is that an overt pronoun involves more features than a covert pronoun (pro). Phonologically, this assumption is trivial, and it also accords with the fact that in pro-drop languages, overt personal pronouns are the marked option, compared to pro.

The interpretation of semantically incorporated bare plurals is nevertheless distinct from that of incorporated bare plurals, see Farkas and de Swart (2003, Ch. 5).

Slavic, Latin, and Classical Greek also have examples of doubling of the kind discussed here (Svenonius 2004), see (i–ii). A careful syntactic analysis of such patterns in these languages awaits future research. That not all examples may in fact involve syntactic doubling is suggested by the fact that the incorporated
particle and the adposition in the lexical associate phrase are sometimes lexically distinct, see (iii).

(i) \textit{pře-plavat přes řeku}  
\hspace{1cm} across-swim-inf across river  
\hspace{1cm} 'swim across the/a river'  
\hspace{1cm} (Czech, Filip 2003)

(ii) \textit{equum ad aquam ad-fert}  
\hspace{1cm} horse to water to-leads  
\hspace{1cm} '(He) brings a horse to water'  
\hspace{1cm} (Latin, Miller 1993:123)

(iii) \textit{Samoljot pere-letajet čerez granicu}  
\hspace{1cm} plane across-flies across border  
\hspace{1cm} 'The plane is flying across the border'  
\hspace{1cm} (Russian, Svenonius 2004)