

Chapter 5

PPs used as arguments

György Rákosi

5.1.	Introduction	287
5.2.	PPs and verbal particles	287
5.2.1.	<i>Introductory remarks</i>	287
5.2.2.	<i>PPs directly selected by the verb</i>	288
5.2.3.	<i>PP complements in particle verb constructions</i>	294
5.2.3.1.	Particle verbs and verbal particles	294
5.2.3.2.	Particle verb constructions: adverbial particles	298
5.2.3.3.	Case-assigning postpositions as particles	299
5.2.3.4.	Case-like postpositions as particles	300
5.2.3.5.	Case suffixes as duplicating particles	302
5.3.	Core and non-core PP arguments	305
5.3.1.	<i>Two types of participant PPs: an overview</i>	305
5.3.2.	<i>Dative case and its competitors: recipients and experiencers</i>	308
5.3.2.1.	Recipients	308
5.3.2.2.	Dative experiencers	312
5.3.3.	<i>Instrumental case: comitatives and instruments</i>	315
5.3.3.1.	Comitatives	315
5.3.3.2.	Instrument PPs	319
5.3.4.	<i>Ablative case and the coding of causes</i>	322
5.3.5.	<i>Spatiotemporal PPs in the argument domain</i>	325
5.4.	Core and non-core PP arguments of adjectives	328
5.4.1.	<i>Introduction</i>	328
5.4.2.	<i>Complementation in the AP</i>	328
5.4.2.1.	Core and non-core PP arguments of adjectives	328
5.4.2.2.	On the syntax of PP complements in APs	333
5.4.3.	<i>Core and non-core PP arguments of adjectives: an inventory of the most frequent patterns</i>	334
5.4.3.1.	Agentive adjectives	334
5.4.3.2.	Adjectives describing mental states	336
5.4.3.3.	Symmetric adjectives	340
5.4.3.4.	Cause PPs licensed by adjectives	342
5.4.3.5.	Miscellaneous PP complements in APs	343

5.4.4.	<i>PP complements in comparative and superlative constructions</i>	344
5.5.	PP complements in noun phrases	347
5.5.1.	<i>Introductory remarks</i>	347
5.5.2.	<i>Simple nouns and PP complements</i>	348
5.5.3.	<i>Event nominalizations and PP complements</i>	351
5.6.	Summary	353
5.7.	Bibliographical notes	354

5.1. Introduction

This chapter discusses the grammar of PPs selected by a verb, an adjective, or a noun in Hungarian. We provide an overview of how PPs are licensed and how they contribute to structure building, with a primary focus on the verb phrase and a subsequent inquiry into PP complements in adjectival phrases and noun phrases. Section 5.2 provides an inventory of PP types that are directly selected by the verb and PPs that are licensed in particle verb constructions. Section 5.3 introduces a distinction between core arguments and non-core arguments of the verb. After a systematic comparison of these two types of PP complements, we illustrate this divide via detailed case studies taken from the domain of PPs marked by dative case, instrumental case, and ablative case, as well as an outlook on other PP varieties. PP complements of adjectives and nouns are discussed in Section 5.4 and Section 5.5, respectively.

What constitutes the focus of attention in this chapter are often referred to in the pertinent literature as **participant PPs**. The fundamental objective of this chapter is to describe the major modes of composition between such PPs and the heads that select them. PP complements that have a predicative function are discussed in Chapter 4 of this volume, and Chapter 7 provides a thorough inventory of adjunct PP types in Hungarian.

5.2. PPs and verbal particles

5.2.1. Introductory remarks

A PP complement can be selected either directly by the verb or by the complex of the verb and a verbal particle, if there is one. This second mode of composition is a characteristic feature of the Hungarian verb phrase. The verbal particle typically bears a telicizing function, and its presence may induce changes in the argument structure and in the subcategorization frame of the verb (see Chapter 4 of this volume for a more detailed discussion of this function of particles). Consider (1) for illustration.

- (1) a. Kati [az asztal-on] / [az asztal alatt] ült.
 Kati the table-Sup / the table under sit.Past.3Sg
 ‘Kati was sitting [on the table] / [under the table].’
- b. Kati rá-ült [az asztal-ra] / [*az asztal alá].
 Kati onto-sit.Past.3Sg the table-Sub / the table to.under
 ‘Kati sat [onto the table] / [*under the table].’

The verb *ül* ‘sit’ selects for a locative PP complement with no specific formal restrictions on the choice of the locative marker (1a). In the particle verb construction represented by (1b), the PP complement may only bear the goal-denoting case marker that the particle itself spells out (see 5.2.3.5 below for more on this construction), and the particle-verb complex is interpreted as an achievement predicate.

Though most particles generally telicize the verb that they combine with, the aspectual properties of particle verbs are somewhat less predictable in the case of

particle-verb combinations that are not transparent semantically. While the motion verb in (2a) is telic in the presence of the particle *be* ‘into’, when the same verb plus particle combination is interpreted non-compositionally as a dative experiencer verb, it denotes a state (2b).

- (2) a. Kati *be-jön* a szobá-ba.
 Kati into-come.3Sg the room-III
 ‘Kati comes into the room.’
- b. Kati *be-jön* Feri-nek.
 Kati into-come.3Sg Feri-Dat
 ‘Feri likes Kati.’

Notice that the subcategorization frame of the complex verb is also different in the two cases. The motion verb takes a directional PP complement (1a), and the experiencer verb requires a dative experiencer (2b).

Our goal in this section is to provide an overview of the **syntactic constructions** in which PP complements of verbs occur, with or without a particle. The influence of the particle on the aspectual composition and the complement structure of the verb phrase receives occasional commentary when it is systematic. A more comprehensive inventory of argument structure alternations involving argument PPs is available in the volume on Verb Phrases.

5.2.2. *PPs directly selected by the verb*

Finite verbs can only select PPs as their **internal** arguments in Hungarian. This does not entail, nevertheless, that PP complements always appear in the postverbal field in neutral sentences. The primary aim of this section is to provide a summary of the default surface realization patterns of argument PPs in neutral sentences in Hungarian, as conditioned by the type of the verbal predicate. We discuss two-place predicates first, and then we turn to a brief inquiry into predicates of higher arity in the light of the results of this introductory discussion. This subsection focuses on verbs that do not combine with verbal particles. Particle verbs are discussed separately in Subsection 5.2.3.

The canonical spell-out position of PP complements of dyadic verbs is in the postverbal field in neutral sentences. Thus (3a) below can be a neutral sentence in response to a question inquiring about what happened. The preverbal, inessive case-marked PP either receives sentential accent and is interpreted as the focus of the clause (3b), or it is a topic (3c).

- (3) a. A bíróság döntött Péter ügyé-ben.
 the court decide.Past.3Sg Péter case.Poss-Ine
 ‘The court has made a decision in Péter’s case.’
- b. A bíróság PÉTER ÜGYÉ-BEN döntött.
 the court Péter case.Poss-Ine decide.Past.3Sg
 ‘It is in Péter’s case that the court has made a decision.’

- c. A bíróság Péter ügyé-ben már döntött.
 the court Péter case.Poss-Ine already decide.Past.3Sg
 ‘As for Péter’s case, the court has already made a decision (in it).’

The complement of the adposition is a definite noun phrase in these examples, as is in most examples below. This is so to ensure that the examples instantiate the canonical word order. Non-specific noun phrase objects occupy the preverbal verb modifier position in neutral sentences (see Chapter 4), and PPs with non-specific noun phrase complements may also target this position. In such cases, the non-specific feature of the noun phrase percolates up to the PP and it triggers the movement of the whole PP into the verb modifier position. Thus the PP in (4) can be a non-focussed verb modifier, unlike the definite PP in (3b), which cannot.

- (4) A bíróság kényes ügyek-ben döntött.
 the court sensitive case.Pl-Ine decide.Past.3Sg
 ‘The court has made a decision in sensitive cases.’

Some verbs require their PP complements to occupy the verb modifier position even when the noun phrase complement of the adposition is specific. We turn to such examples below after a discussion of the dominant pattern that (3) represents.

The most frequent type of adpositions that are subcategorized for by verbs are case suffixes. This is non-surprising given that the ability to occur on subcategorized arguments of the verb has been argued to be a defining property of **case suffixes** (see Chapter 2). We list some examples for such subcategorized case markers from the spatial domain in (5)-(7).

- (5) ● Case suffixes on PP complements: locatives
- a. A magyar történelem bővelkedik furcsaságok-ban.
 the Hungarian history abound.3SG oddity.Pl-Ine
 ‘Hungarian history abounds with oddities.’
 - b. Ez nem Pál-on múlik.
 this not Pál-Sup pass.3Sg
 ‘This is not up to Pál.’
- (6) ● Case suffixes on PP complements: sources
- a. János régóta gondoskodik a nagymamájá-ról.
 János for_long look_after the grandmother.Poss.3Sg-Del
 ‘János has long been looking after his grandmother.’
 - b. Éva is részesült a jutalom-ból.
 Éva too receive_a_share_of.Past.3sg the reward-Ela
 ‘Éva also received a share of the reward.’
 - c. Feri fél a pókok-tól.
 Feri fear.3Sg the spider.Pl-Abl
 ‘Feri is afraid of spiders.’

- (7) ● Case suffixes on PP complements: goals
- a. Mihály ragaszkodik a korábbi álláspontjá-hoz.
 Mihály adhere.Past.3Sg the former opinion.Poss.3Sg-All
 ‘Mihály adheres to his former opinion.’
- b. Kati számít Feri-re.
 Kati count.on.3Sg Feri-Sub
 ‘Kati counts on Feri.’
- c. János gratulált Feri-nek.
 János congratulate.Past.3Sg Feri-Dat
 ‘János congratulated Feri.’

As these examples testify, PP complements can bear different types of case morphology.

Remark 1. The categories **locative**, **source** and **goal** refer to the primary spatial readings of the case suffixes, and they do not necessarily describe the semantic contribution of these elements in the examples above (5)-(7). We continue using these terms here to refer sometimes only to **the morphological form** of the adposition rather than to its actual meaning.

The verbs in these examples tend to be lexical items that have relatively rich descriptive content, and they receive sentential stress.

There are relatively few verbs in this group that require their PP complements to be headed by a postposition. The following two sentences contain two relevant examples with the PP occupying a postverbal position in neutral sentences.

- (8) ● PPs headed by a subcategorized postposition
- a. Feri menekül Éva elől.
 Feri flee.3Sg Éva away_from
 ‘Feri is running away from Éva.’
- b. János aggódik Kati miatt.
 János worry.3Sg Kati because_of
 ‘János worries about Kati.’

Both adpositions in (8) are case-like postpositions, and case-assigning postpositions are unusual in this construction type. A case-assigning postposition may also act as a verbal particle when selected by the verb, and its complement is in fact licensed as the complement of the particle verb complex. We discuss such examples in Section 5.2.3.3.

Another set of dyadic verbs taking PP complements tend to be stress-avoiding, and many items in this group have relatively weak semantic content (see Komlósy 1992 and 1994 for a detailed discussion). The PP complement of these verbs occupies a preverbal verb modifier position in neutral sentences. (9) is illustrative of this pattern.

- (9) a. *Éva a mamá-ra gondolt.*
 Éva the mum-Sub think.Past.3Sg
 (i) ‘Éva thought of Mum.’
 (ii) ‘It is Mum that Éva thought of.’
- b. *Éva gondolt a mamá-ra.*
 Éva think.Past.3Sg the mum-Sub
 (i) *‘Éva thought of Mum.’
 (ii) ‘It is Éva that thought of Mum.’
 (iii) ‘Éva did think of Mum.’

The word order shown in (9b) is only grammatical if the subject DP is focussed (9bii), or in a verum focus construal with the verb bearing sentential stress (9biii). Unlike in the previous set of examples (5)-(8), the subject argument in this construction (9b) cannot be interpreted as the topic of a neutral sentence (9bi). (9a) has two interpretations: the preverbal PP is either a verb modifier (9ai) or it is interpreted as the focus of the clause (9bii). The two readings are differentiated by two distinct intonational patterns.

(9a) is thus different from (3b), which we repeat as (10):

- (10) *A bíróság Péter ügyé-ben döntött.*
 the court Péter case.Poss-1ne decide.Past.3Sg
 ‘It is in Péter’s case that the court has made a decision.’

The preverbal PP can only be interpreted as focus in the construction type represented by (10), disregarding for now the possibility that it can also be a (contrastive) topic. Preverbal focus is exhaustive in Hungarian, and (10) is only true if there is no other case that the court decided on in the event described by the sentence. The PP thus cannot be assumed to be a verb modifier, since in that case it would not necessarily have an exhaustive interpretation. The lack of exhaustivity is, however, an option for the interpretation of the preverbal PP in (9a). A standard test to establish this involves the comparison of (9a) and (11).

- (11) *Éva a mamá-ra és a papá-ra gondolt.*
 Éva the mum-Sub and the dad-Sub think.Past.3Sg
 (i) ‘Éva thought of Mum and Dad.’
 (ii) ‘It is Mum and Dad that Éva thought of.’

(11) contains a coordinate PP with the PP of (9a) being one of the conjuncts. If (11) is true, (9a) can still be true, and the two respective propositions are in fact mutually compatible. This may only be so if the PP is not necessarily interpreted exhaustively in either sentence. If (9a) necessarily expressed an exhaustive statement about *Mum*, then its truth would not follow from (11). Consequently, the preverbal PP in (9a) does not have to be a focussed constituent. The sentence is grammatical with neutral prosody, and the preverbal PP occupies a verb modifier position in this case.

The following examples contain other verbs that pattern up with *gondol* ‘think of’ in this respect.

- (12) ● Verbs licensing preverbal PPs as verb modifiers
- a. A filozófia a csodálkozás-ból ered.
the philosophy the astonishment-Ela originate.3Sg
'Philosophy originates from astonishment.'
 - b. Kati ebből él.
Kati this.Ela live.3Sg
'Kati makes a living by doing this.'
 - c. Mindez Feri-re vall.
all.this Feri-Sub bespeak.3Sg
'All this sounds like Feri.'
 - d. A falu ma Romániához tartozik.
the village today Romania-All belong_to.3Sg
'Today the village belongs to Romania.'
 - e. A parti másnap reggel-ig tartott.
the party next.day morning-Ter last.Past.3Sg
'The party lasted till the next morning.'
 - f. Ez az út Miskolc felé vezet.
this the road Miskolc towards lead.3Sg
'This road goes towards Miskolc.'
 - g. Az összeesküvés a király ellen irányult.
the conspiracy the king against is_directed_against.Past.3Sg
'The conspiracy was directed at the king.'

These verbs are all stress-avoiding, and their PP complement occupies the verb modifier position in neutral sentences. The head of these PPs is either a case suffix (12a-e) or a case-like postposition (12f-g). There are no thematic restrictions on the type of the adposition that can head a verb modifier PP: source-type markers (12a-b) are acceptable just as well as goal-type markers (12c-d,f-g), alongside temporal PPs, such as the terminative PP in (12e) and other types not discussed here. It is also noteworthy that the adposition takes a definite noun phrase complement in each of the examples above. Verbs in this group require their PP argument to occupy the verb modifier position in neutral sentences irrespective of the type of the noun phrase that the P-head selects.

Remark 2. The verbs discussed here ((9), (12)) may superficially look like the Definiteness Effect verbs discussed in Chapter 6. Definiteness Effect verbs require the presence of a preverbal PP if their internal argument is specific and if the clause contains no preverbal focus constituent. The example in (i) contains a Definiteness Effect verb, and (ii) illustrates the construction that we are discussing:

- (i) A gyerek *(a kórház-ban) született.
the child the hospital-1ne be_born.Past.3Sg
'The child was born in the hospital.'
- (ii) A gyerek *(a kórház-ra) gondolt.
the child the hospital-Sub think.Past.3Sg
'The child thought of the hospital.'

The PP is obligatory in both sentences if the subject is a definite noun phrase. If, however, the subject is an indefinite noun phrase, the PP is optional in the case of Definiteness Effect verbs (iii):

- (iii) Két gyerek (a kórház-ban) született.
 two child the hospital-ine be_born.Past.3Sg
 'Two children were born (in the hospital).'
- (iv) Két gyerek *(a kórház-ra) gondolt.
 two child the hospital-Sub think.Past.3Sg
 'Two children thought of the hospital.'

There is no change in the status of the PP in (iv). Such stress-avoiding verbs, like *gondol* 'think of', subcategorize for PP-arguments with designated morphological markers. This PP is an obligatory argument, unlike the adjuncts that surface by Definiteness Effect verbs under the conditions discussed in Chapter 6.

The verbs that we have overviewed so far are two-place predicates with an internal PP argument, and they do not combine with verbal particles. They fall into two groups depending on whether their PP-complement occupies a verb modifier position in neutral sentences or not. If the verb is richer in its semantics, it will typically not strive to avoid receiving sentential stress, and its PP-complement occupies a postverbal position. An immediately preverbal PP is interpreted as focus in these constructions, and it receives the accompanying focus intonation.

These observations carry over to three-place verbal predicates, too. Since our immediate aim here is to probe into the patterns that characterize the core syntax of PP complements in Hungarian, we restrict this brief discussion to verbs that take an object and an internal PP argument. Triadic verbs of this kind show the same basic divide that we have observed above. Consider the following examples.

(13) • Triadic verbs: postverbal PPs in neutral contexts

- a. János figyelmeztette Kati-t a veszély-re.
 János warn.Past.3Sg Kati-Acc the danger-Sub
 'János warned Kati of the danger.'
- b. Az orvos tájékoztatta a beteg-et a lehetőségek-ről.
 The doctor inform.Past.3Sg the patient-Acc the alternative.PI-Del
 'The doctor informed the patient about the alternatives.'

(14) • Triadic verbs: preverbal PPs in neutral contexts

- a. A tudós a kísérleti adatok-ra alapozta az elmélet-é-t.
 the scientist the experimental data-Sub base.Past.3Sg the theory-Poss-Acc
 'The scientist based his theory on experimental data.'
- b. A szónok maga mellé állította a tömeg-et.
 the speaker himself to_next_to make_stand.Past.3Sg the crowd-Acc
 'The speaker made the crowd stand by his side./The speaker won over the crowd.'

The two verbs in (13) license a PP argument in the postverbal field in neutral contexts. (14) contains examples in which the PP – even in the presence of a definite noun phrase complement – is in the verb modifier position in a discourse-neutral setting. The PPs are headed by a case suffix ((13) and (14a)) or by a case-like postposition (14b).

If the object is a non-specific noun phrase, then it outcompetes the PP-complement for the verb modifier position in neutral sentences. In other words, the PP-complement will appear postverbally in these cases, as in the following two examples.

(15) ● Triadic verbs: bare noun phrase objects

- a. A szónok tömegek-et állított maga mellé.
 the speaker crowd.Pl-Acc make_stand.Past.3Sg himself to_next_to
 ‘The speaker made crowds (of people) stand by his side.’
- b. Az elnök tudomás-t szerzett a terv-ről.
 the president knowledge-Acc gain.Past.3Sg the plan-Del
 ‘The president came to know about the plan.’

(15a) is a variant of (14b) with a bare plural object. The non-specific object occupies the preverbal position, and the PP stays in the postverbal field. (15b) is a similar construction, which includes a bare singular that forms a slightly idiomatic complex predicate with the verb (*tudomást szerez* ‘gain knowledge of’). Such examples abound in Hungarian, so (15b) is representative of a frequent mode of complex verb formation.

Another prominent complex predicate formation process is the combination of the verb and a verbal particle. In the next Subsection, we investigate particle verb constructions that typically license PP complements. Viewed from the vantage point of the observations we have made above, verbal particles instantiate another strategy that makes it possible, as it were, for PP complements to stay in the postverbal zone in neutral sentences. We now turn to a discussion of the most frequent particle verb constructions in Hungarian.

5.2.3. *PP complements in particle verb constructions*

5.2.3.1. *Particle verbs and verbal particles*

We distinguish here four different formal types of particle verb constructions that can host PP complements. (16) illustrates these.

(16) ● Particle verb constructions with PP complements in Hungarian

- a. János fel-néz Kati-ra. [adverbial particle]
 János up-look.3Sg Kati-Sub
 ‘János looks up to Kati.’
- b. János át-néz Kati-n. [case-assigning postposition as particle]
 János through-look Kati-Sup
 ‘János looks through Kati.’
- c. Kati utána-nézett az információ-nak. [case-like postposition as particle]
 Kati after-look the information-Dat
 ‘Kati checked up on the solution.’
- d. Kati rá-nézett János-ra. [particle cognate with a case suffix]
 Kati onto-look.Past.3Sg János-Sub
 ‘Kati looked onto János.’

Each of these constructions have their own distinguishing properties, which we discuss respectively in the following four subsections.

In principle, the above particle verb constructions are in free variation with PP complements that occur in the company of “bare”, particleless verbs. So (17a) and (17b) are equally grammatical:

- (17) a. János fel-ugrott a szék-re
 János up-jump.Past.3Sg the chair-Sub
 ‘János jumped up onto the chair.’
- b. János a szék-re ugrott.
 János the chair-Sub jump.Past.3Sg
 ‘John jumped onto the chair.’

In a descriptive sense, the sublative-marked PP is the complement of the particle verb in (17a) and of the verb in (17b). The PP occupies the preverbal position in the absence of the particle in (17b), which, if present, outcompetes the PP for this position in neutral sentences in the case of this particular verb. Semantic differences are easy to attest between the two members of such contrastive pairs, even if it is not always straightforward to predict them. This is certainly not the case in (17), where the particle in the first sentence provides information about the upward directionality of the movement, a contextual parameter that is simply left unspecified in the second. In other words, (17b) is true either if János jumps up, down or across onto the chair, whereas (17a) is only compatible with the first of these possible scenarios. (For an alternative approach that treats the particle and the PP as forming one underlying constituent and sharing a secondary predicate function, see Chapter 4.)

The apparent free variation between these two modes of structure building might be absent in less compositional cases, where the semantic contribution of the particle is less predictable.

- (18) a. Judit *(rá-)jött a megoldás-ra.
 Judit onto-came.3Sg the solution-Sub
 ‘Judit figured out the solution.’
- b. Ez még rá-ér.
 this still onto-reach.3Sg
 ‘This can still wait.’

The particle is obligatory in (18a), or else the targeted idiomatic meaning of the verbal predicate is totally lost. In (18b), the particle forms an idiomatic complex with the verb, and this particular interpretation is only available if no accompanying PP complement is present. There are also examples where the particle is optional, but unlike in the case of the variation in (17), its presence or the absence does not seem to change the descriptive semantics of the VP:

- (19) A leírás (rá-)illik Feri-re.
 the description (onto-)fit.3Sg Feri-Sub
 ‘The description fits Feri.’

This variation in the distribution of particles and PP complements is, to some extent, non-predictable, even if we can detect several factors that motivate the observed data patterns. As discussed in detail in Chapter 4 of this volume, directional verbal particles typically have a telicizing function, and the particle evidently has this function in (18a). It is less obvious in what sense the particle in (19) may have a telicizing function (see Chapter 4 for a pertinent discussion). Our concern here, however, is not a detailed investigation of these factors, but a summary overview of the particle verb constructions that include PPs.

One final note about the term **verbal particle** is in order here before we embark on this description. Chapter 2 Section 2.2.3 of this volume provides a comprehensive survey of verbal particles in Hungarian. Here we would like to highlight some illustrative differences between the grammar of verbal particles and PP complements. As we noted in Section 5.2.2 above, source type directional PPs may occupy the preverbal verb modifier position in neutral sentences. Most verbal particles are directionals of the goal or of the path type, though we find some locative items among them, too. But source markers cannot be used as verbal particles, a possible reflex of a universal constraint on sources that bans them from entering complex predicate formation processes (see É. Kiss 1998 and Surányi 2009b on the Hungarian data). Consequently, whereas the illative case marker can be used as a particle, duplicating the case morphology of the PP (20a), the elative case marker cannot participate in this construction (20b). To express the intended meaning, the goal-denoting particle *ki* ‘out’ can be used in this context, together with an elative case marked PP denoting the starting point of the movement (20c).

- (20) a. Feri bele-mászott a ládá-ba.
 Feri into-climb.Past.3Sg the box-III
 ‘Feri climbed into the box.’
- b. *Feri belőle-mászott a ládá-ból.
 Feri out_from-climb.Past.3Sg the box-Ela
 Intended meaning: ‘Feri climbed out of the box.’
- c. Feri ki-mászott a ládá-ból.
 Feri out-climb.Past..3Sg the box-Ela
 ‘Feri climbed out of the box.’

Note furthermore that the neutral order in each of the four constructions introduced above is the one where the particle occupies the preverbal slot, and the PP is in the postverbal field.

- (21) a. János fel-néz Kati-ra.
 János up-look.3Sg Kati-Sub
 ‘János looks up to Kati.’
- b. János KATI-RA néz fel.
 János Kati-Sub look.3Sg up
 ‘It is Kati that János looks up to.’

The inverse order of the two requires the PP to be interpreted as the focus of the clause (21b).

Remark 3. There are a few exceptions to this overall pattern (see Komlósy 1992: 341). One is given below:

- (i) A vizsga két rész-ből tevődik össze.
 the exam two part-Ela consist_of.3Sg together
 'The exam consists of two parts.'
- (ii) *A vizsga két rész-ből össze-tevődik.
 the exam two part-Ela together-consist_of.3Sg

The particle verb *összetevődik* 'consist of' requires the relative-marked PP in the preverbal slot, and the particle follows the verb in neutral contexts (i). The usual particle+verb order is in fact ungrammatical in this case (ii). *Elhelyezkedik* 'is located' is another similar example:

- (iii) Ezek a létesítmények több tagállam-ban helyezked-nek el.
 these the facility.PI several member_state-lne be_located-3PI away
 'These facilities are located in several member states.'
- (iv) *Ezek a létesítmények több tagállam-ban el-helyezked-nek.
 these the facility.PI several member_state-lne away-be_located-3PI

The particle *el* 'away' is in the postverbal field in neutral sentences since a locative PP occupies the preverbal verb modifier position.

As we have seen above, the verbal particle outcompetes the PP for the verb modifier position in the usual case. Another context where this difference manifests itself is nominalizations of particle verb constructions (see Section 5.5 and Chapter 4 for more on nominalizations). The particle directly combines with the nominalized head, and the PP argument itself is introduced as the complement of the participial form of the copula (22a). If we switch the respective positions of the particle and the PP, the result is entirely ungrammatical.

- (22) a. a hegy-re való fel-mászás
 the mountain-Sub being up-climbing
 'the climbing up to the mountain'
- b. *a fel való hegy-re mászás
 the up being mountain-Sub climbing
 Intended meaning: 'the climbing up to the mountain'

These observations highlight a substantial difference between verbal particles and PP complements, illustrating the fact that the former have a much stronger drive to form a complex with the verb than the latter.

Remark 4. One might be tempted to conclude on these grounds that particles are mere P-heads, and they do not project a PP. An argument against this view has been constructed on the basis of bridge verbs that show strong clause union effects even with finite complement clauses (see Koopman & Szabolcsi 2000). In particular, some modal verbs can attract the verbal particle of the verb in their finite complement clauses across the complementizer (see also Chapter 4):

- (i) Rá kell, hogy jöjj a megoldás-ra.
 onto must that come.Subj.2Sg the solution-Sub
 'You must figure out the solution.'

Since such movement across finite clause boundaries can only target phrases, but not heads, the raised particle in (i) must be a PP.

5.2.3.2. *Particle verb constructions: adverbial particles*

A handful of directional particles that we call **adverbial particles** constitute a special subclass of verbal particles. Prominent members of this class are listed in (23).

(23) • Adverbial particles

ki	be	le	fel	el	vissza
'out'	'into'	'down'	'up'	'away'	'back'

As discussed in Chapter 2 of this volume, these are locative adverbs used as particles (with the exception of *el* 'away' and *vissza* 'back'), and they have comparative and superlative forms (with the exception of *el*).

These particles participate in complex predicate formation with the verb, and the resulting particle verb often selects for a PP argument. The particles themselves introduce no specific constraint on the form and the type of the PP, and the P-head itself is always selected by the particle verb complex. Some examples involving source-type PPs are listed in (24), and others including goal PPs are in (25).

- (24) a. *Feri ki-lépett a szövetkezet-ből.*
 Feri out-step.Past.3Sg the cooperative-Ela
 'Feri quit the cooperative.'
- b. *Kati be-számolt a konferenciáról.*
 Kati in-count.Past.3Sg the conference-Del
 'Kati reported on her conference experiences.'
- c. *Le-maradt-am a hírek-ről.*
 down-stay.Past.1Sg the news-Del
 'I missed the news.'
- d. *János el-állt a szerződés-től.*
 János away-stand.Past.3Sg the contract-Abl
 'János retracted from the contract.'
- e. *Kati vissza-riadt a felelősség-től.*
 Kati back-startle.Past.3Sg the responsibility-Abl
 'Kati shrank back from the responsibility.'
- (25) a. *Éva ki-nézett a meccs-re.*
 Éva out-look.Past.3Sg the match-Sub
 'Éva went out to take a look at the match.'
- b. *Kati be-költözött az új lakás-ba.*
 Kati in-move.Past.3Sg the new flat-III
 'Kati moved in to the new flat.'
- c. *János le-nézett a kocsmá-ba.*
 János down-look.Past.3Sg the pub-III
 'János went down to the pub to spend some time there.'

- d. János fel-néz Kati-ra.
 János up-look.3Sg Kati-Sub
 ‘János looks up to Kati.’
- e. El-jutott Feri-hez is a hír.
 away-reach.Past.3Sg Feri-All too the news
 ‘The news reached Feri, too.’
- f. Kati vissza-émlékezett a kezdet-re.
 Kati back-remember.Past.3Sg the beginning-Sub
 ‘Kati recalled the beginning.’

The verbs in most of these examples either do not by themselves subcategorize for the PPs, or their meaning is different in the absence of the particle. The presence of the particle is therefore essential.

Adverbial particles also have uses in which they do not associate with PP complements. In (26a), for example, the particle is a telic marker, and it measures the event out by predicating that the referent of the object DP, the whole book was read. This function of the particle is discussed in detail in Chapter 4. The same particle *el* ‘away’ may have another aspectual value in particle verb complexes when it makes the verbal event durative (26b). According to Kiefer (2009: 252), this particle has a delimitative-perfective meaning: the activity is temporally delimited, but the VP is not telic. Note that there is no VP-internal complement in (26b).

- (26) a. János el-olvasta a könyv-et.
 János away-read.3Sg the book-Acc
 ‘János read the (whole) book.’
- b. Feri el-borozgatott.
 Feri away-sip_wine.Past.3Sg
 ‘Feri was sipping wine.’

The dominant aspectual contribution of adverbial particles is telicity (and perfectivity, see Chapter 4), and this holds of most of the examples in (24) and (25). But, as we have seen before, the attested aspectual structure of the particle verb complex is not necessarily predictable in non-compositional combinations. (25d), for example, is the description of the mental state of the subject referent on the experiencer reading of the particle verb.

5.2.3.3. Case-assigning postpositions as particles

A subset of case-assigning Ps can be used as verbal particles. These are the same case-assigning Ps that allow P-stranding (see Chapter 2).

- (27) ● Case-assigning Ps used as particles

át	belül	keresztül	közel	végig
‘across, through’	‘inside of’	‘through’	‘close to’	‘all along’
szembe	túl			
‘to opposite, against’	‘beyond, over’			

When used as adpositions, these Ps subcategorize for superessive, allative or instrumental case on their noun phrase complement. As particles, they require the same case morphology on the PP argument of the particle verb complex. (28) contains relevant examples, with one spatial PP example for each respective adposition given on the right for comparison.

- | | | |
|---------|---|--|
| (28) a. | <p>Át-lát-ok az orvosok-on.
 through-see-1Sg the doctors-Sup
 ‘I can see through the doctors.’</p> | <p>a mező-n át
 the meadow-Sup across
 ‘across the meadow’</p> |
| b. | <p>Ő közel került hozzám lelkileg.
 (s)he close_to get.Past.3Sg All.1Sg spiritually
 ‘She got close to me spiritually.’</p> | <p>a ház-hoz közel
 the house-All close.to
 ‘close to the house’</p> |
| c. | <p>Feri keresztül-ment sok minden-en.
 Feri through-go.Past.3Sg many everything-Sup
 ‘Feri went through a great deal.’</p> | <p>az erdő-n keresztül
 the forest-Sup through
 ‘through the forest’</p> |
| d. | <p>Éva szembe-fordult korábbi barátai-val.
 Éva against-turn.Past.3Sg former friend.Poss.Pl.3Sg-Ins
 ‘Éva turned against her former friends.’</p> | <p>a nap-pal szembe
 the sun-Ins against
 ‘against the sun’</p> |
| e. | <p>Feri túl-lépett végre a kudarcok-on.
 Feri over-step.3Sg finally the failure.Pl-Sup
 ‘Feri finally got over the failures.’</p> | <p>a hegy-en túl
 the hill-Sup over
 ‘over the hill’</p> |
| f. | <p>Végig-megy-ek az út-on.
 all.along-go-1Sg the road-Sup
 ‘I go all the way through on this road.’</p> | <p>az utcá-n végig
 the street-Sup all.along
 ‘all along the street’</p> |

These particles, like the adverbial particles discussed in the previous section, also have uses in which they do not take PP associates. Since these are not directly relevant for our overview of PP arguments, we do not discuss such examples here.

5.2.3.4. Case-like postpositions as particles

Directional and locative case-like postpositions can function as verbal particles. Some of them are listed in (29) below (see Chapter 2 for a detailed inventory).

(29) • Case-like Ps used as particles

alá	elé	főlé	mellé	mögé
‘to under’	‘to in front of’	‘to above’	‘to next.to’	‘to behind’
alatta	mellette	utána		
‘under’	‘next to’	‘after’		

The directional particles end in the now obsolete lative marker *-é*, and they also function as PPs with 3Sg pronominal complements. The locative particles more transparently spell out the 3Sg agreement morphology, as is clear from the comparison of *után* ‘after’ and *utána* ‘after it/him/her’. So these particles are identical in form to case-like Ps with 3Sg pronominal complements (where the pronoun complement is *pro*-dropped and the agreement morphology on the adposition itself spells out its person and number features). Consider the singular

paradigm of the postposition *alatta* ‘under’ (30) for illustration. (30c) contains the 3Sg form.

- (30) a. *Éva alattam maradt*
Éva under.1Sg stay.Past.3Sg
 ‘Éva stayed under me.’
- b. *Éva alattad maradt.*
Éva under.2Sg stay.Past.3Sg
 ‘Éva stayed under you.’
- c. *Éva alatta maradt.*
Éva under.3Sg stay.Past.3Sg
 ‘Éva stayed under it/him/her.’

This construction is to be compared with the particle verb construction in (31d).

When these Ps are used as verbal particles, the particle verb can take a dative-marked complement headed by a lexical noun. The examples in (31) illustrate this construction.

- (31) a. *János alá-vetette magát az akarat-om-nak.*
János to_under-throw.Past.3Sg himself-Acc the will-Poss.1Sg-Dat
 ‘János deferred himself to my will.’
- b. *Elé-lépt-em a vonat-nak.*
to_in_front_of-step.Past-1Sg the train-Dat
 ‘I stepped out in front of the train.’
- c. *Éva utána-nézett a személyzet-nek.*
Éva after-look.Past.3Sg the staff-Dat
 ‘Éva checked up on the staff.’
- d. *Az infláció alatta maradt a várakozások-nak.*
the inflation under stay.Past.3Sg the expectation.Pl-Dat
 ‘The inflation rate stayed lower than expected.’

These particles share some properties that distinguish them from PPs that include true pronominal complements. Since the same issue arises with the duplicating particles discussed in the next section, we provide arguments there against the assumption that these inflecting particles are pronominal in the sense of taking referential pronoun complements.

When the dative complement is plural with animate referents, and the particle is used in its primary spatial meaning, then a subset of native speakers can also accept plural morphology on the particle (that is, this particle is identical in form to the inflected postposition with a *pro*-dropped 3Pl complement). But the singular form is just as acceptable in these cases, too, and it is actually the preferred option in the standard.

- (32) a. *Feri utána-futott a rendőrök-nek.*
Feri after-run.Past.3Sg the policeman.Pl-Dat
 ‘Feri ran after the policemen.’

- b. %Feri után-uk futott a rendőrök-nek.
 Feri after-3Pl run.Past.3Sg the policeman.Pl-Dat
 ‘Feri ran after the policemen’.

The plural variety of the particle is much worse if the dative complement is not animate and if the particle-verb combination is more idiomatic. It is absolutely ungrammatical if neither condition is met, and therefore (31d) has no alternative with the plural form of the particle:

- (33) *Az infláció alatt-uk maradt a várakozások-nak.
 the inflation under-3Pl stay.Past.3Sg the expectation.Pl-Dat
 Intended meaning: ‘The inflation rate stayed lower than expected.’

We discuss this agreement pattern in more detail in the next subsection, since these effects are more pronounced in the case of duplicating particles.

5.2.3.5. *Case suffixes as duplicating particles*

A subset of the case suffixes can also function as verbal particles in Hungarian (see Chapter 2 for an in-depth discussion of case suffixes). The following list is a comprehensive survey of all particles in this group, with the first five items being directional, and the last three being locatives.

- (34) • Case suffixes used as duplicating particles
- | | | | | | | | |
|--------|-------|-------|------|--------|-------|-------|--------|
| bele | érte | hozzá | neki | rá | benne | rajta | vele |
| ‘into’ | ‘for’ | ‘to’ | ‘to’ | ‘onto’ | ‘in’ | ‘on’ | ‘with’ |

It is only a subset of native speakers who use the particle based on the causal-final case suffix (*érte* ‘for’) or the one based on the instrumental suffix (*vele* ‘with’), and, consequently, (35b) below is not acceptable for everyone. As in the case of the particles derived from case-like postpositions, the particles in this group too are formally identical to the 3Sg pronominal form of the case-marker (with the pronoun complement itself being *pro*-dropped). The particle-verb complex requires the same case morphology on the PP complement that the particle itself spells out, hence the term **duplicating particle**. Some examples are given in (35), and notice that in some cases the phonological form that the case suffix has when it takes a noun complement might be substantially different from how the same suffix is spelled out as a particle (which, in its turn, is phonologically identical to a case suffix bearing a pronoun complement). See examples (35a) and (35d) as illustration for such phonological divergence.

- (35) a. Kati bele-nyugodott a döntés-be.
 Kati into-become_resigned.to the decision-Sub
 ‘Kati resigned herself to the decision.’
- b. %Érte-megy-ek a gyerekek-ért az óvodá-ba.
 for-go-1Sg the child.Pl-Caus the kindergarten-Sub
 ‘I go to collect the children from the kindergarten’.

- c. Feri is hozzá-szokott a gondolat-hoz.
 Feri too to-get_used_to.Past.3Sg the thought-All
 ‘Feri too got used to the thought.’
- d. A katonák rajta-ütöttek az ellenség-en.
 the soldier.Pl on-hit.Past.3Sg the enemy-Sup
 ‘The soldiers took the enemy by surprise.’

The superficial appearances are that the particle is a P with some sort of a weak pronominal element in this construction, but it becomes clear on closer inspection that this is far from obviously so.

We note first that the pronominal complement of the case marker can never be spelled out in the duplicating construction. So while we have (36a), (36b) is ungrammatical if the pronoun is overt:

- (36) a. Én ő-hozzá mentem feleség-ül.
 I (s)he-All.3Sg go.Past.3Sg wife-Adv
 ‘It is him that I married.’
- b. Én (*ő-)hozzá mentem Feri-hez feleség-ül.
 I (s)he-to go.Past.3Sg Feri-All wife-Adv
 ‘I married Feri’.

The particle does not change its form in standard Hungarian if the PP complement is plural. Nevertheless, the agreeing, plural form is also available for some speakers as an alternative (with varying judgements reported in the pertinent literature, see Rákosi 2014 for an overview). As is the case with particles derived from case-like Ps (see (32) and (33)), the plural particle is only available if the noun phrase complement of the adposition has animate reference. Compare the standard (37a) and its plural variant (37b).

- (37) a. Feri rá-rivallt a gyerekek-re.
 Feri onto-yell.Past.3Sg the child.Pl-Sub
 ‘Feri yelled at the children.’
- b. %Feri rájuk-rivallt a gyerekek-re.
 Feri onto.3Pl-yell.Past.3Sg the child.Pl-Sub
 ‘Feri yelled at the children.’

That this variation is more substantial for speakers accepting both varieties than variation in the spellout of number features is suggested by at least the following consideration. If the PP complement is an anaphor, then the plural particle is ungrammatical even for speakers who otherwise accept it in (37b):

- (38) a. A gyerekek rá-rivalltak egymás-ra
 the child.Pl onto-yell.Past.3Pl each.other-Sub
 ‘The children yelled at each other.’
- b. *A gyerekek rájuk rivalltak egymás-ra.
 the child.Pl onto.3Pl yell.Past.3Pl each.other-Sub
 Intended meaning: ‘The children yelled at each other.’

If the plural particle is a pronominal element, then its presence simply induces a locality violation: a pronoun cannot have a coreferring antecedent in the same clause. Since (38a) is grammatical for all speakers, we can conclude that the particle *rá* ‘onto’ is not a PP with a pronoun complement in the duplicating construction. It is certainly not marked for NUMBER, though it may be specified for PERSON.

The issue is further complicated by the fact that though pronominal PPs normally do not participate in the duplicating construction, they may occasionally do so under special circumstances. If the pronoun receives a discourse function (by, for example, appearing with the discourse particle *is* ‘too’), then both the particle and the pronoun complement can be spelled out simultaneously. This is an option for practically all speakers in third person (39a-a’), irrespective of whether the pronominal PP is postverbal or in the preverbal field. Judgements are more complex in first or second person. The default form of the particle is acceptable for some speakers if the pronominal PP is postverbal (39b), but not when it is preverbal (39b’). The agreement features of the pronoun complement can also be copied onto the particle, with the result being subject to variable acceptability when the PP is postverbal (39c). The construction is generally judged acceptable if the pronominal PP is preverbal (39c’).

- (39) a. *Én rá-néztem* *ő-rá* *is.*
 I onto-look.Past.3Sg (s)he-Sub.3Sg too
 ‘I did look at him, too.’
- a’. *Én ő-rá* *is* *rá-néztem.*
 I (s)he-Sub.3Sg too onto-look.Past.3Sg
 ‘I looked at him, too.’
- b. %*Én rá-néztem* *te-rád* *is.*
 I onto-look.Past.3Sg you-Sub.2Sg too
 ‘I did look at you, too.’
- b’. **Én te-rád* *is* *rá-néztem.*
 I you-Sub.2Sg too onto-look.Past.3Sg
 intended meaning: ‘I looked at you, too.’
- c. %*Én rád-néztem* *te-rád* *is.*
 I onto.2Sg-look.Past.3Sg you-Sub.2Sg too
 ‘I did look at you, too.’
- c’. *Én te-rád* *is* *rád-néztem.*
 I you-Sub.2Sg too onto.2Sg-look.Past.3Sg
 ‘I looked at you, too.’

Thus in non-third persons the fully agreeing variety is preferred, but only if the pronominal PP is preverbal (39c’), or else there is no optimal solution (39b-c).

5.3. Core and non-core PP arguments

5.3.1. Two types of participant PPs: an overview

A prototypical PP argument is both selected and subcategorized for by the verb. We regard such PPs as **core arguments** of the verb. Consider (40) for illustration.

- (40) a. Mindez *(Péter-re) vall.
 all.this Péter-Sub bespeak.3Sg
 ‘All this sounds like Péter.’
- b. *Mindez Péter-hez vall.
 all.this Péter-All bespeak.3Sg
 Intended meaning: ‘All this sounds like Péter.’

(40a) shows us that the sublative PP is obligatory in this use of the verb, and (40b) illustrates that the morphological coding of this PP is lexically determined; no other adposition can substitute for the sublative case that the verb requires. With other verbal predicates, PP arguments may also be left implicit in facilitating discourse settings. (41) features a dative experiencer verb, and (41b) specifically shows that such PP omission is licit in this case.

- (41) a. Nagyon tetszett nekem a film.
 very_much appeal.Past.3Sg Dat-1Sg the movie
 ‘I very much liked the movie.’
- b. Nagyon tetszett a film. Jó, hogy elment-ünk.
 very_much appeal.Past.3Sg the movie good that away.go.Past-1Pl
 ‘I very much liked the movie. It is good that we went.’
- c. *Nagyon tetszett számomra a film.
 very_much appeal.Past.3Sg for.me the movie
 ‘*The movie very much appealed for me.’

The verb *tetszik* ‘appeal, like’ expresses a relation between a subject matter of emotion and an individual who is construed as the attitude holder. This attitude holder is the speaker both in (41a) and (41b), irrespective of whether the 1Sg dative argument is spelled out or not. The existence of such a specific attitude holder (or a group of them) is entailed in each use of this verbal predicate. In this semantic sense, the dative argument of *tetszik* ‘appeal to, like’ is never optional, and we regard it as a core argument. Its morphology is not subject to variation, as is typical of participant PPs selected as core arguments of the verb. This is the reason why (41c) with an alternative adposition fails.

Many other PPs that express different participants of the verbal event do not have these properties, and we can regard them as non-core arguments of the verb. These PPs are optional (they are not entailed by the predicate), and the semantics of their P-head quite transparently frames the interpretation of the PP, describing the nature of the contribution that the referent of the PP makes to the verbal event. The verb *dolgozik* ‘work’, for example, can combine with several participant PPs of this kind.

- (42) ● Non-core arguments of the verb *dolgozik* ‘work’
- a. *Éva Kati-nak dolgozik.*
Éva Kati-Dat work.3Sg
‘Éva works for Kati.’
 - b. *Éva Kati-nál dolgozik.*
Éva Kati-Adv work.3Sg
‘Éva works at Kati’s place.’
 - c. *Éva Kati-ért dolgozik.*
Éva Kati-Cau work.3Sg
‘Éva works for (the benefit of) Kati.’
 - d. *Éva Kati-val dolgozik.*
Éva Kati-Ins work.3Sg
‘Éva works with Kati.’
 - e. *Éva az új darab-on dolgozik.*
Éva the new play-Sup work.3Sg
‘Éva is working on the new play.’

The dative PP in (42a) can be interpreted as a proper recipient – Kati will receive what Éva creates –, and we can alternatively construe Kati also as the employer. The adessive PP in (42b) either describes the location of the working event, or, by implicature, it can also identify Kati as Éva’s employer. The causal-final suffix on the PP in (42c) denotes a beneficiary, and the instrumental suffix in (42d) is a device to present Kati as Éva’s associate during the work. Finally, the superessive case morphology in (42e) allows us to express the target of Éva’s working activity.

This section probes into the nature of these two distinct types of coding of participant PPs in Hungarian. In particular, we focus on representative construction types where the same case morphology turns up both in the core and the non-core argument domain on PPs that have converging semantic-conceptual types and non-identical grammatical properties. One important correlate of this divide is that the case morphology that is used on arguments may be in competition with other morphological devices in the non-core domain. We have seen in (41) above that dative experiencer arguments can only be marked with dative case. But there are verbal predicates that license such experiencers optionally, and then dative is not the only possible coding tool:

- (43) a. *Ez nem jelent semmi-t.*
this not mean.3Sg nothing-Acc
‘This does not mean anything.’
- b. *Ez nem jelent semmi-t nek-em.*
this not mean.3Sg nothing-Acc Dat-1Sg
‘This does not mean anything to me.’
- c. *Ez nem jelent semmi-t számomra.*
this not mean.3Sg nothing-Acc for.me
‘This does not mean anything for me.’

The holder of the mental state described by the verb *jelent* ‘mean’ may either be coded with dative case (43b) or with the postposition *számára* ‘for’ (43c), and both sentences can be true under the same conditions. But it is also an option not to name such a participant and not to imply that there is one specific attitude holder in the discourse. (43a) can be used as an objective description, without any specific experiencer(s) in mind. In other words, (43a) is a construction where the experiencer is not represented at any relevant level of linguistic representation. Thus the PP in (43b) and (43c) is genuinely introduced into the construction, and this PP is a non-core argument in our terms (see Section 5.3.2 below for more on this).

Remark 5. What we call here *non-core arguments* are thus optional complements of the verb. They are optional in the strong sense of the word, since they are not included in the core argument list of the verb. We could alternatively consider them adjuncts for this reason (see also Chapter 7). Since a more fine-grained representation of the syntax of these constructions lies beyond the reach of our primarily descriptive goals, we continue referring to these optional participant PPs as non-core argument PPs. This is also in line with the more traditional approach to the description of argument structure phenomena, where such PPs are regularly discussed as arguments.

The different types of adpositions identified in Chapter 2 of this volume are not created equal inasmuch as they do not have the same potential to be used in the argument domain. The less grammaticalized, borderline cases of postpositions discussed in Section 2.4 are never subcategorized for. *Számára* ‘for’ is one of these, and it is only found outside of the core argument domain in cases like (43) above, where it is never the sole morphological option. It can often be replaced by a dative PP without changing the propositional meaning of the clause. Case-like Ps, and to a lesser degree, case-assigning Ps are attested in the subcategorization frames of certain verbs. Even if they do not contribute their basic (spatial) meaning, they may have a recognizable function across different occurrences, as in the following examples:

(44) ● The case-like postposition *mellett* ‘next to’ on non-spatial arguments

- a. A változás mellett döntött-em.
the change next_to decide.Past-1Sg
‘I decided on change.’
- b. Kiállt-am János mellett.
stand.Past-1Sg János next.to
‘I stood by János.’
- c. Kati Klára mellett szólt a gyűlés-en
Kati Klára next.to speak.Past.3Sg the meeting-Sup
‘Kati spoke for Klára at the meeting.’

In each of these three examples, the agent performs an action targeted at facilitating the realization of a certain cause. This conceptual content is relatively consistently represented by the case-like postposition *mellett* ‘next to’. But this pattern is restricted to a handful of verbs at most. We cannot productively supplement any potential verbal candidate with this postposition to arrive at the meaning characterized above.

More productive patterns in argument realization are much more likely to employ case suffixes, the most grammaticalized type of adpositions. We discuss here three such productive argument realization patterns: the expression of participant phrases marked by dative case, instrumental (or comitative) case, and ablative case. The discussion involves a systematic comparison of core and non-core arguments marked by the same case morphology and belonging to the same broader conceptual type. The case marker is the sole option in the core argument domain, but it is in competition with postpositional P-markers in the non-core argument domain. Time and space denoting argument PPs merit closer attention on their own right, and we conclude the discussion of verbal argument PPs with some remarks on these PP types.

5.3.2. *Dative case and its competitors: recipients and experiencers*

5.3.2.1. *Recipients*

Dative case functions as the primary means of marking recipients in Hungarian. Dative-marking on recipient arguments normally implies that the transmission described by the verb is successful. In the examples in (45) below, this means that Péter receives the ten-dollar sum (45a), Péter hears and processes the joke (45b), or the greeting probably goes through to Péter (45c). In other words, the dative participant usually becomes a possessor at the end of the event (albeit in a more figurative sense of the word in (45b) and (45c): the message comes to the possession of Péter). This is the normal course of events, since (45c), for example, can also be true if Péter misses the greetings. But it is still presupposed that the dative participant is a potential recipient, and (45c) is not felicitous in a context in which Péter is asleep or unconscious.

- (45) ● Dative-marked recipient arguments
- a. János adott 10 dollár-t Péter-nek.
 János give.Past.3Sg 10 dollar-Acc Péter-Dat
 ‘János gave Péter 10 dollars.’
 - b. Kati mondott Péter-nek egy vicc-et.
 Kati tell.Past.3Sg Péter-Dat a joke-Acc
 ‘Kati told Péter a joke.’
 - c. Kati hangosan köszönt Péter-nek.
 Kati loudly greet.Past.3Sg Péter-Dat
 ‘Kati said hello to Péter in a loud voice.’

Most of the verbs with dative recipient arguments do not necessarily denote movement in the true physical sense of the word. (45a) is true, for example, if János transfers the money to Péter’s bank account.

Remark 6. Genuinely spatial uses of dative morphology are also frequent. In example (i) and (ii), the dative PP is interpreted as a spatial goal, as it denotes the endpoint of movement:

- (i) Az autó a fal-nak ütközött.
the car the wall-Dat bump.Past.3Sg
'The car bumped into the wall.'
- (ii) Judit-nak dobt-am a labdá-t.
Judit-Dat throw.Past-1Sg the ball-Acc
'I threw the ball to Judit.' or 'I threw the ball at Judit.'

In a few examples, the dative PP expresses a direction, that is, it refers to a potential endpoint along a path. This endpoint is not necessarily reached.

- (iii) A hajó észak-nak / [észak felé] tartott.
the ship north-Dat / north towards head.Past.3Sg
'The ship headed towards the north.'
- (iv) %Miskolc-nak / [Miskolc felé] megyünk.
Miskolc-Dat / Miskolc towards go.1Pl
'We are going in the direction of Miskolc.'

The case-like postposition *felé* 'towards' is the unmarked choice in standard Hungarian both in (iii) and in (iv). The dative version of (iv) is distinctively dialectal. The apparent scarcity of directional uses indicates that dative-marking on goals and recipients requires the completion of the movement described by the verb in the prototypical case.

Recipients can also be expressed with the postpositions *részére* 'for him/her' and *számára* 'for him, her' (see Chapter 2 Section 2.4 of this volume for more on these). Verbs that do not entail a transfer of possession, and which therefore do not take recipient arguments, generally allow the insertion of a non-core recipient argument if such an extra participant can be included in the event denoted by the verb. (46) is an example.

- (46) a. Az iskola külön asztal-t foglalt a tanár-ok számára / részére.
the school separate table-Acc reserve.Past.3Sg the teacher-Pl for / for
'The school reserved a separate table for the teachers.'
- b. Az iskola külön asztal-t foglalt a tanár-ok-nak.
the school separate table-Acc reserve.Past.3Sg the teacher-Pl-Dat
'The school reserved a separate table for the teachers.'

There appears to be no strong truth-conditional difference at first sight between the dative version (46b) and the postpositional varieties (46a) of this sentence. These PPs are nevertheless not equivalent, as becomes evident in other contexts.

Note first that neither postposition can appear in argument positions (47c). (47a) does not contradict this claim since this sentence must be interpreted with an implicit (dative) recipient argument, someone who directly receives the money, and the overt PP itself denotes a secondary recipient. This secondary recipient, János, will become the ultimate possessor of the 10 dollar sum once it is handed over to him. (47b) explicitly spells this scenario out with an overt dative argument and the non-core secondary recipient PP marked by either of the two postpositions.

- (47) a. Péter át-adott 10 dollár-t János részére / számára.
Péter over-give.Past.3Sg 10 dollar-Acc János for / for
'Péter gave over 10 dollars for János.'

- b. Péter át-adott 10 dollár-t az alapítvány-nak
 Péter over-give.Past.3Sg 10 dollar-Acc the foundation-Dat
 János részére / számára.
 János for / for
 ‘Péter gave over 10 dollars to the charity foundation for John.’
- c. *Kati hangosan köszönt Péter részére / számára.
 Kati loudly greet.Past.3Sg Péter for / for
 Intended meaning: ‘Kati said hello to Péter in a loud voice.’

The postposition *részére* ‘for him/her’ is not acceptable in contexts in which no obvious recipient is present and transfer of possession does not obviously take place, whereas dative case and the postposition *számára* ‘for him/her’ are compatible with such contexts.

- (48) Talált-am nek-ed / számodra / ??részedre egy érdekes hír-t.
 find.Past-1Sg Dat-2Sg / for.2Sg / for.2Sg an interesting news-Acc
 ‘I found an interesting piece of news for you.’

The interpretation of the dative PP and the PP headed by *számadra* ‘for you’ may have beneficiary overtones in (48) and in other contexts as well. Nevertheless, beneficiaries that are not construed as recipients are usually expressed by alternative P-markers, with the causal-final suffix being a prime vehicle for this function. Thus whereas the dative or the postposition in (49a) identify an extra participant who is the receiver of the song in some sense of the word (the song might be dedicated to this person, or this person will perform the song), (49b) only conveys the message that the addressee will somehow benefit from this song. For example, it will help raise public awareness towards a particular cause that benefits the addressee.

- (49) a. Írt-am nek-ed / számodra egy dal-t.
 write.Past Dat-2Sg / for.2Sg a song-Acc
 ‘I wrote a song to/for you.’
- b. Írt-am ért-ed egy dal-t.
 write.Past-1Sg Cau-2Sg a song-Acc
 ‘I wrote a song for (the benefit of) you.’

The verb *write* is a two-place predicate, and it does not entail the existence of either a recipient or a beneficiary. One can just simply write a song without having anybody else in mind who will receive or benefit from this song in some way. But it is an option to introduce an extra participant of this kind, and then we see the morphological variation that (49) attests, with concomitant fine-grained variation in the interpretation of the PP. If a recipient argument is entailed by the verb, as in the examples in (45), then the verb typically subcategorizes for dative case on this argument, and no other adposition is grammatical.

Thus the data that we have surveyed in this subsection illustrate the typical distribution of case morphology and postpositional P-markers across complements of the verb: dative case is used on recipient arguments, whereas secondary recipients and beneficiaries, qua non-core arguments, are either expressed as dative or as postpositional PPs. Dative case is a heavily grammaticalized element of the

large set of adpositions, but the postpositions *részére* ‘for him’ and *számára* ‘for him’ are less so. As discussed in Chapter 2 of this volume, many adpositions originate as possessive constructions, and this possessive character is especially visible with the two postpositions discussed in this section (see also Section 2.4). One manifestation of this is the optional use of the definite article by the pronominal forms of these adpositions.

Remark 7. Pronominal possessors and the definite article are not in complementary distribution in Hungarian. In fact, the article is obligatory if the pronominal possessor is overt:

- (i) az én apám-nak
 the I father.Poss.1Sg-Dat
 ‘to my father’

The article can often be dropped in spoken registers if the possessum is uniquely identifiable through the possessor. The possessor is typically inalienable in this case, see (50a) in the main text below. Note that possessive postpositions *részére* ‘for him’ and *számára* ‘for him’ are inalienable possessive constructions historically.

Consider the data in (50) for illustration.

(50) ● Variation in article use

- a. Vett-em egy kabát-ot (az) apám-nak.
 buy.Past-1Sg a coat-Acc the father.Poss.1Sg-Dat
 ‘I bought a coat for my father.’
- b. Vett-em egy kabát-ot (a) részére / számára.
 buy.Past-1Sg a coat-Acc the for.3Sg / for.3Sg
 ‘I bought a coat for him.’
- c. Vett-em egy kabát-ot (*a) nek-i.
 buy.Past-1Sg a coat-Acc the Dat-3Sg
 ‘I bought him a coat.’

If the pronominal possessor is not spelled out, the definite article is often optional in the possessive noun phrase with inalienable possessums. The kinship term in (50) is inalienably possessed, and the article can be omitted. The pronominal postpositions *részére* and *számára* ‘for him’ usually appear without a definite article, but they are just as grammatical in its presence (50b). The dative-marked form of a pronoun, however, is not compatible with the definite article, instructing us that the grammaticalization process has gone much further in the case of the case marker than in the case of the postpositions in (50b).

Remark 8. Another interesting difference between dative case and these two postpositions concerns the selectional restrictions that they impose on their complements. Dative case shows essentially no such restrictions, and anything that can be conceived of as a recipient in some sense can be marked with dative case.

- (i) Faragt-am egy új láb-at [a kalóz-nak] / [a kutyá-nak] /
 carve.Past-1Sg a new leg-Acc the pirate-Dat / the dog-Dat /
 [a szék-nek].
 the chair-Dat
 ‘I carved a new leg for the pirate / for the dog / for the chair.’

312 PPs used as arguments

Of the two postpositions, *számára* 'for him' is acceptable for most speakers with referents higher up on the animacy scale, but *részére* 'for him' is preferably used only to pick human participants.

- (ii) Faragt-am egy új láb-at [a kalóz] / [a kutya] /
 carve.Past-1Sg a new leg-Acc the pirate / the dog /
 [*a szék] számára
 the chair for.3Sg
 'I carved a new leg [for the pirate] / [for the dog] / [for the chair].'
- (iii) Faragt-am egy új láb-at [a kalóz] / [[?]a kutya] /
 carve.Past-1Sg a new leg-Acc the pirate / the dog /
 [*a szék] részére
 the chair for.3Sg
 'I carved a new leg for the pirate / for the dog / for the chair.'

These semantic restrictions are not specific to the contexts discussed in this subsection, but they generally characterize the use of these postpositions (see also the next subsection for pertinent data).

5.3.2.2. Dative experiencers

Experiencers represent another domain where dative case is used in Hungarian. Verbs can either take dative experiencers as core arguments (51), or as non-core arguments (52).

(51) • Dative experiencer arguments

- a. Az ilyesmi tetszik János-nak.
 the such_thing appeal.3Sg János-Dat
 'János likes such things.'
- b. Az ilyesmi derogál János-nak.
 the such_thing is_below_dignity John-Dat
 'Such things are below János's dignity.'
- c. Hirtelen be-ugrott a megoldás János-nak.
 suddenly in-jumped.3Sg the solution János-Dat
 'The solution suddenly clicked for János.'
- d. Be-jön nek-em ez az életmód.
 in-come.3Sg Dat-1Sg this the life_style
 'I like this lifestyle.'

(52) • Non-core dative experiencer PPs

- a. Ez a város nagyon megfelel Feri-nek.
 this the town very_much suit.3Sg Feri-Dat
 'This town is very much suitable for Feri.'
- b. Egyedül te számítasz nek-em.
 only you matter.2Sg Dat-1Sg
 'Only you matter to me.'
- c. Feri-nek kell egy új kabát.
 Feri-Dat need.3Sg a new coat
 'Feri needs a new coat.'

- d. Bevált az új rendszer mindenkinek.
 worked_well.3Sg the new system everyone-Dat
 ‘This new system has worked well for everyone.’

Verbs in the first group (51) denote mental states of specific individuals, who have the respective dispositions towards a certain subject matter that the nominative subject refers to. Verbs in the second group can also express an individualized relation of this kind, but they are also capable of assigning a more objective construal to the subject matter argument, where the role of specific experiencers is backgrounded or it is missing altogether.

The two types of dative PPs differ accordingly. Both types are optional in the syntactic sense, since even dative experiencer arguments can be omitted in Hungarian in facilitating discourse contexts (see also 5.3.1). But dative experiencer arguments are always entailed, and in the absence of an overt spellout, they are interpreted as specific implicit arguments. In the usual case, a dative experiencer verb without an overt dative PP makes a claim about the speaker’s attitudes (53a). Verbs licensing non-core dative experiencer arguments may actually be interpreted without any reference to such an implicit experiencer or a group of them. (53b) is a well-formed description of a property of the subject argument – the prominent property of the system that it has worked well –, and this statement is not particularized to the mental state of any specific groups of speakers.

(53) • Optionality

- a. Be-jön ez az életmód.
 in-come.3Sg this the life_style
 ‘I like this lifestyle.’
- b. Bevált az új rendszer.
 worked_well.3Sg the new system
 ‘This new system has worked well.’

Another semantic difference between the two types of dative PPs concerns the availability of non-experiencer readings only in the second group. Dative arguments of dative experiencer verbs must be interpreted as experiencers (54a), whereas this is not necessary in the case of non-core dative experiencer PPs (54b).

(54) • Non-experiencer readings

- a. [#]Az ilyesmi derogál János-nak akkor is, ha nem tud róla.
 the such_thing is_below_dignity János-Dat then too if not know.3Sg Del-3Sg
 ‘Such things are below János’s dignity, even if he does not know about it.’
- b. Ez a város nagyon megfelel Péter-nek akkor is, ha
 this the town very_much suit.3Sg Péter-Dat then too if
 nem tud róla.
 not know.3Sg Del-3Sg
 ‘This town is very much suitable for Péter, even if he does not know about it.’

It follows from this that the dative arguments of experiencer verbs must refer to human beings (55a). Interestingly, this is not required in the case of verbs that take optional dative experiencer PPs (55b).

(55) • Non-experiencer readings

- a. #Az ilyesmi derogál ennek a fafaj-nak.
 the such_thing is_below_dignity this.Dat the tree_species-Dat
 ‘Such things are below the dignity of this tree species.’
- b. Ez a város nagyon megfelel ennek a fafaj-nak.
 this the town very_much suit.3Sg this.Dat the tree_species-Dat
 ‘This town is very much suitable for this tree species.’

(55b) obviously does not describe the mental states of these trees, but their propensity to grow well in this particular habitat.

There is no competitor for dative case in the argument domain, but the postposition *számára* ‘for him’ is an alternative marker on non-core experiencer arguments. In fact, both types of adpositions license both the experiencer and the non-experiencer reading in the latter case, though *számára* might be more geared towards the non-experiencer reading in some contexts. So, other things being equal, the choice of the dative case in (56b) is the preferred vehicle to host the experiencer reading. The postposition *számára* ‘for him’ is preferred when others decide about Feri’s fate, and he might not even know about the town at the time of speaking.

(56) • Morphological variation

- a. Hirtelen be-ugrott a megoldás János-nak / [*János számára].
 suddenly in-jumped.3Sg the solution János-Dat / János for
 ‘The solution suddenly clicked for János.’
- b. Ez a város nagyon megfelel Feri-nek / [Feri számára].
 this the town very_much suit.3Sg Feri-Dat / Feri for
 ‘This town is very much suitable for Feri.’

We noted above (see Remark 8) that whereas dative case imposes no selectional restrictions on its complement, *számára* ‘for him’ may only take noun phrases that refer to entities higher up on the animacy scale. Flowers may represent a borderline case in this respect (57a), but the postposition is only a slightly acceptable choice at best when we are discussing clothes (57b).

(57) • Animacy restrictions

- a. Ez a víz megfelel [a virág-ok-nak] / [[?]a virág-ok számára].
 this the water suit.3Sg the flower-Pl-Dat / the flower-Pl for
 ‘This water is suitable for flowers.’
- b. Ez a víz megfelel [a ruhá-k-nak] / [^{??/*}a ruhá-k számára].
 this the water suit.3Sg the clothes-Pl-Dat / the clothes-Pl for
 ‘This water is suitable for the clothes.’

Such idiosyncratic referential constraints do not nevertheless disturb the emerging picture, which once again depicts competition between a case marker and a postposition only in the non-core argument domain, with dative case being the sole option in the case of experiencer PPs selected as arguments of the verb.

5.3.3. Instrumental case: comitatives and instruments

5.3.3.1. Comitatives

Instrumental case is the primary morphology used in comitative and instrumental PPs. We discuss these two distinct functions in these two consecutive subsections, starting with comitatives. Comitative PPs denote participants who accompany the agent (expressed as the subject argument), and who are themselves intentional agents playing a causal role in the unfolding of the event denoted by the verb. We argue here that comitative PPs fall into two major categories: they can be the core arguments of causative and reciprocal verbs, and they are also licensed as non-core comitative PPs by agentive verbs in general.

Hungarian has productive causative morphology that expands the argument structure of the input verb by adding an agent to it. This new argument is expressed as the subject of the causativized verb, and it denotes a participant who is causally responsible for initiating the event described by the verbal stem. The original agent of this event (the subject argument of the input verb) bears instrumental case if the input verb is transitive. In the examples below, (58a) and (58b) are the input transitive constructions, and (58a') and (58b') are the causativized varieties, respectively.

(58) ● Causative verbs: transitive inputs

- a. A diák-ok meg-ír-t-ák a teszt-et.
 the student-Pl Perf-write-Past-3Pl the test-Acc
 'The students wrote the test.'
- a'. A tanár meg-ír-at-t-a a diák-ok-kal a teszt-et.
 the teacher Perf-write-Caus-Past-3Sg the student-Pl-Ins the test-Acc
 'The teacher had the students write the test.'
- b. Az autószerelő meg-javít-ott-a a kocsi-m-at.
 the car_mechanic Perf-repair-Past-3Sg the car-Poss.1Sg-Acc
 'The car mechanic repaired my car.'
- b'. Meg-javít-tat-t-am a kocsi-m-at az autószerelő-vel.
 Perf-repair-Caus-Past-1Sg the car-Poss.1Sg-Acc the car_mechanic-Ins
 'I had my car repaired by the car mechanic.'

The PP in the causative sentences denotes a secondary agent, as it were: a participant who is the immediate agent of the respective writing and repairing events, but who acts under the subject argument's influence. If the input verb is intransitive, then the causativized version is usually a transitive verb, expressing the input agent as the object of the clause. The demoted agent can nevertheless also be expressed alternatively as an instrumental PP in certain cases, and we may find minimal pairs of the following kind:

(59) ● Causative verbs: intransitive input

- a. Miért dolgoz-tat-od ez-t az ember-t?
 why work-Caus-2Sg this-Acc the person-Acc
 'Why do you make this person work?'

- b. *Miért dolgoz-tat-sz ez-zel az ember-rel?*
 why work-Caus-2Sg this-Ins the person-Ins
 ‘Why do you have this person work? / Why do you employ this person to work?’

Accusative marking on the demoted agent implies that this person is directly controlled by the addressee. The alternative construction with instrumental case is used when the agent of the working event is free(r) to act on his or her own, and the subject of the causativized verb (the addressee in (59b)) has no direct control over this process beyond initiating it.

Instrumental marking also spells out this comitative, secondary agent role in reciprocal verb constructions. The core set of reciprocal verbs are derived from transitive verbs, and they denote events in which the individuals denoted by the subject and the instrumental PP act in a more or less symmetrical manner. Consider (60) for illustration:

- (60) ● Reciprocal verbs derived from transitive verbs
- a. *Kati meg-csókol-t-a Péter-t.*
 Kati Perf-kiss-Past-3Sg Péter-Acc
 ‘Kati kissed Péter.’
- a’. *Kati csókol-óz-ott Péter-rel.*
 Kati kiss-Rec-Past.3Sg Péter-Ins
 ‘Kati was involved in a mutual kissing activity with Péter.’
- b. *Kati ver-i Péter-t.*
 Kati beat-3Sg Péter-Acc
 ‘Kati beats Péter.’
- b’. *Kati ver-eked-ik Péter-rel.*
 Kati beat-Rec-3Sg Péter-Ins
 ‘Kati is exchanging blows with Péter.’

The transitive sort of kissing is asymmetric, Péter need not kiss Kati back (60a). This cannot be the case with the reciprocal version (60a’), where both participants are involved in the event to the same extent. The transitive verb *ver* ‘beat’ is also unidirectional in terms of the causal influence of one participant over the other (60b), unlike (60b’), where the blows are necessarily reciprocated.

The set of reciprocal verbs derived from transitive inputs is relatively small, but any verbal predicate describing potentially symmetric events requiring a partner may be used in the comitative construction represented by the primed-examples in (60). Some relevant examples are listed in (61).

- (61) ● Verbs of social interaction
- a. *Kati beszélget Évá-val.*
 Kati talk.3Sg Éva-Ins
 ‘Kati is conversing with Kate.’
- b. *Kati küzd Évá-val.*
 Kati fight.3Sg Éva-Ins
 ‘Kati is fighting with Éva.’

- c. Kati sakkozik Éva-val.
 Kati play_chess.3Sg Éva-Ins
 'Kati is playing chess with Éva.'

These comitative PPs denote participants who act as partners in the social activity described. Verbs of social interaction that allow for non-symmetric construals may take other adpositional markers to indicate the lack of symmetry. (62) is to be compared to (61b) in this respect.

- (62) Kati küzd Éva ellen.
 Kati fight.3Sg Éva against
 'Kati is fighting against Éva.'

Remark 9. Many verbs of social interaction are complexes formed with the particle *össze* 'together' or with the particle *együtt* 'together'. The former often implies some directionality, in the sense that the two participants come to occupy the same location during the event (albeit in a metaphorical sense in examples like (ii)).

- (i) Géza össze-költözött Adrienn-nel.
 Géza together-move.Past.3Sg Adrienn-Ins
 'Géza moved in together with Adrienn.'
- (ii) Géza össze-fogott Adrienn-nel.
 Géza together-hold.Past.3Sg Adrienn-Ins
 'Géza joined forces with Adrienn.'

Együtt 'together' is a case-assigning postposition that requires instrumental case on its complement. It functions as a verbal particle with many verbs of social interaction, and the resulting particle-verb complex takes a comitative argument bearing instrumental case.

- (iii) Péter együtt-működik Béla-val.
 Péter together-operate.3Sg Béla-Ins
 'Péter cooperates with Béla.'
- (iv) Kati együtt-maradt Péter-rel.
 Kati together-stay.Past.3Sg Péter-Ins
 'Kati stayed together with Péter.'

We note that the comitative construction discussed here is one of the two alternative syntactic realizations of symmetric verbs. The participants of these events can also be expressed via a plural subject argument without an accompanying comitative PP. Below are such alternatives to two of the comitative constructions from the main text ((60a') and (61b)).

- (v) Kati és Péter csókol-óz-t-ak.
 Kati and Péter kiss-Rec-Past.3PI
 'Kati and Péter were involved in a mutual kissing activity.'
- (vi) Kati és Éva küzd-enek.
 Kati and Éva fight-3PI
 'Kati and Éva are fighting.'

We refer the reader to the volume on Verb Phrases for a discussion of semantic differences between the comitative construction and this plural subject construction.

The instrumental PPs of causative verbs and of verbs of social interaction form one natural class that we regard here as **comitative arguments**. They contrast with non-core comitative arguments, which are optional participants that can freely be

inserted into clauses if the event denoted can contain individuals who accompany the subject argument.

- (63) ● **Optional comitative PPs**
- a. Kati level-et írt Évá-val.
 Kati letter write.Past.3Sg Éva-Ins
 ‘Kati wrote a letter with Éva.’
- b. Kati Évá-val tanul.
 Kati Éva-Ins study.3Sg
 ‘Kati is studies with Éva.’
- c. Kati haza-megy Évá-val.
 Kati home-go.3Sg Éva-Ins
 ‘Kati goes home with Éva.’

The referent of this comitative PP normally performs the same activity that the subject argument does, though in some cases it might be interpreted to take on a less active role. (63c), for example, allows for a reading where Éva is carried home by Kati, and she does not perform a movement activity herself.

The differences between these non-core PPs and core comitative PPs are systematic. The PPs in (63) are all optional, and if they are not present in the clause, then the existence of the respective participants is not entailed. We do not need a partner for writing a letter, sleeping or going home. True comitative arguments, however, are obligatory, in certain cases even in the strict syntactic sense of the word. The comitative PP cannot be dropped in the following causative (64a) and reciprocal verb (64b) constructions.

- (64) ● **Obligatory comitative arguments**
- a. Én *(vel-ük) dolgoz-tat-ok.
 I Ins-3Pl work-Caus-1Sg
 ‘As for me, I employ them (for such jobs).’
- b. Kati *(Évá-val) talál-koz-ott.
 Kati Éva-Ins find-Rec-Past.3Sg
 ‘Kati met Éva.’

The comitative argument may remain implicit in the case of other verbs in these two groups, but its existence is still entailed.

- (65) ● **Implicit comitative arguments**
- a. A tanár meg-ír-at-t-a a dolgozat-ot.
 the teacher Perf-write-Caus-Past-3Sg the test-Acc
 ‘The teacher had the test written (by someone/some individuals).’
- b. Kati csókol-óz-ott.
 Kati kiss-Rec-Past.3Sg
 ‘Kati was involved in a mutual kissing activity (with someone).’

Instrumental case is not the sole option in the case of non-core comitatives, which may also be marked by other means. Such PPs can be headed by the case-assigning

postposition *együtt* ‘together’ – which requires instrumental case on its complement (66a) –, or they can be expressed through a periphrastic phrase like *társaságában* ‘in the company of’.

- (66) ● Non-core comitatives: variation in form
- Kati Évá-val együtt tanul.
Kati Éva-Ins together study.3Sg
‘Kati is studying together with Éva.’
 - Kati haza-megy Éva társaság-á-ban.
Kati home-go.3Sg Éva company-Poss-Ine
‘Kati goes home in the company of Éva.’

No such variation is licit if the comitative PP is a core argument:

- (67) ● Core comitatives: only instrumental case
- *Én vel-ük együtt dolgoz-tat-ok.
I Ins-3Pl together work-Caus-1Sg
Intended meaning: ‘As for me, I employ them (for such jobs).’
 - *Kati Éva társaság-á-ban talál-koz-ott.
Kati Éva company-Poss-Ine find-Rec-Past.3Sg
Intended meaning: ‘Kati met Éva.’

Another interesting difference between core and non-core comitative PPs concerns the acceptability of instrumental-case marked reciprocal anaphors. If the subject is a plural noun phrase, then the comitative PP can host the anaphor both in causative (68a) and reciprocal constructions (68b), but the reciprocal anaphor is ungrammatical in Hungarian in non-core comitative PPs (68c).

- (68) ● Comitative reciprocal anaphors
- A tanár-ok meg-ír-at-t-ák egymás-sal a teszt-et.
the teacher-Pl Perf-write-Caus-Past-3Pl each_other-Ins the test-Acc
‘The teacher had each other write the test.’
 - Kati és Jani csókol-óz-t-ak egymás-sal.
Kati and Jani kiss-Rec-Past.3Pl each_other-Ins
‘Kati and Jani were involved in a mutual kissing activity with each other.’
 - *Kati és Éva level-et írt-ak egymás-sal.
Kati and Éva letter-Acc write.Past-3Pl each_other-Ins
Intended meaning: ‘Kati and Éva wrote a letter with each other’

These differences all support the argument analysis of instrumental PPs in causative and reciprocal constructions, which are selected and subcategorized for by the verb, unlike non-core comitative PPs, which are not and which show a less constrained grammatical behaviour.

5.3.3.2. Instrument PPs

While the grammatical differences between core and non-core occurrences of comitative PPs are quite prominent, it is less easy to make the same distinction in

the domain of instrument PPs. The examples in (69) below illustrate constructions in which instrument PPs are used.

(69) • Instrument PPs

- a. A diák-ok virág-ok-kal díszített-ék a táblá-t az iskolá-ban.
 the students-Pl flower-Pl-Ins decorate-3Pl the board-Acc the school-Ins
 ‘The students decorated the board with flowers in the school.’
- b. Meg-tölt-ött-em a hordó-t víz-zel.
 Perf-fill-Past-1Sg the barrel-Acc water-Ins
 ‘I filled the barrel with water.’
- c. Az orvos gyógynövény-ek-vel gyógyított-a meg a beteg-et.
 the doctor herb-Pl-Ins cure.Past-3Sg Perf the patient-Acc
 ‘The doctor cured the patient with herbs.’
- d. Ez-zel a tol-lal írt-am a vers-e-i-m-et.
 this-Ins the pen-Ins write.Past-1Sg the poem-Poss-Pl-1Sg-Acc
 ‘I wrote my poems with this pen.’
- e. János kalapács-csal tört-e össze a jeg-et.
 János hammer-Ins break.Past-3Sg apart the ice-Acc
 ‘János smashed the ice into pieces with a hammer.’
- f. Jobban lát-ok az új szemüveg-gel.
 better see-1Sg the new glasses-Ins
 ‘I can see better with the new glasses.’

Examples (69d-f) contain optional instrument PPs that are prototypical representatives of this conceptual category. We can use our own body when we smash things and, consequently, instruments are not obligatory participants of breaking events in general. We can also visualize the world around without the help of glasses or other machinery. In a similar manner, one can imagine writing activities in which the human agent uses only his or her fingers to create characters (in the sand, for example), and therefore external instruments are not a conceptual necessity in this case either. On the other hand, the existence of the instrument-marked argument is entailed in examples (69a-c). We need to use some material when we decorate or fill a target location, and curing processes also generally involve some sort of a secondary agent that creates the curative effect. Admittedly, these PPs are less prototypical instances of what we normally consider instruments. The water in (69b), for example, is not a device causally facilitating the filling event to go through, but it is the entity that moves from one position to another. Nevertheless, the three examples in (69a-c) are more obviously core arguments of the verb, the existence of the PP argument is entailed in each case.

One prominent difference between the two groups of verbs concerns the availability of alternations targeting the instrument-marked PP. If this PP is a core argument, then it can also be expressed as the subject of the verb in an alternative argument realization pattern (70a-c). This is usually not an option for non-core instrument PPs (70d-f) in episodic contexts.

(70) ● Instrument subjects

- a. Virág-ok díszített-ék a táblá-t az iskolá-ban.
flower-Pl decorate-3Pl the board-Acc the school-Ine
'Flowers decorated the wall in the school.'
- b. A víz meg-tölt-ötte a hordó-t.
the water Perf-fill-Past-3Sg the barrel-Acc
'The water filled the barrel.'
- c. A gyógynövény-ek meg-gyógyított-ák a beteg-et.
the herb-Pl Perf-cure.Past-3Pl the patient-Acc
'The herbs cured the patient.'
- d. ^{??}Ez a toll írt-a a vers-e-i-m-et.
this the pen write.Past-3Sg the poem-Poss-Pl-1Sg-Acc
'^{??}This pen wrote my poems.'
- e. [?]A kalapács össze-tört-e a jeg-et.
the hammer apart-break.Past-3Sg the ice-Acc
'The hammer smashed the ice into pieces.'
- f. *Az új szemüveg jobban lát.
the new glasses better see-3Sg
'*The new glasses can see better.'

Non-core instrument PPs can be paraphrased with periphrastic descriptions like *segítségével* 'with the help of', *használatával* 'using' or *alkalmazásával* 'using, with the application of' (71c-d). This is not possible in the case of *díszít* 'decorate' (71a) or *megettölt* 'fill', though such a paraphrase is possible for *meggyógyít* 'cure' (71b).

(71) ● Instrument PPs: modifying the adposition

- a. *A diák-ok virág-ok segítség-é-vel díszített-ék a táblá-t
the student-Pl flower-Pl help-Poss-Ins decorate.Past-3Pl the board-Acc
az iskolá-ban.
the school-Ine
'*The students decorated the board with the help of flowers in the school.'
- b. Az orvos gyógynövény-ek segítség-é-vel gyógyított-a meg a beteg-et.
the doctor herb-Pl help-Poss-Ins cure.Past-3Sg Perf the patient-Acc
'The doctors cured the patient with the help of herbs.'
- c. János kalapács segítség-é-vel tört-e össze a jeg-et.
János hammer help-Poss-Ins break.Past-3Sg apart the ice-Acc
'János smashed the ice into pieces with the help of a hammer.'
- d. Jobban lát-ok az új szemüveg segítség-é-vel.
better see-1Sg the new glasses help-Poss-Ins
'I can see better with the help of the new glasses.'

Thus the difference between core and non-core instrument PPs is less pronounced than in the case of comitatives, and we seem to be dealing with a cline in this case rather than an absolute dichotomy.

5.3.4. *Ablative case and the coding of causes*

Causality plays an important role in how we see and describe events of the world, and languages employ intricate machinery to represent causal relations. Hungarian is no exception to this. In this subsection, we describe one prominent pattern in representing causes in the clause: the use of ablative case and cause-denoting postpositions. In this domain, too, these PPs are core arguments of some verbs, and they function as non-core cause arguments elsewhere.

Ablative causes are selected as arguments of a good number of subject experiencer verbs. One group of these verbs are non-derived subject experiencers from the broad set where the English *love* and *hate* belong. What makes this subset special in Hungarian is that their internal argument is a PP, rather than an accusative object. This PP denotes the cause that triggers the respective mental state in the experiencer (72).

- (72) ● Ablative arguments of non-derived subject experiencers.

Kati fél / retteg / szenved / pánikol a pók-ok-tól.
 Kati fear.3Sg / dread.3Sg / suffer.3Sg / panic.3Sg the spider-Pl-Abl
 ‘Kati is afraid of / dreads / suffers because of / panics over spiders.’

Another group of subject experiencers are derived from object experiencer verbs of the *frighten*-type (73). In the subject experiencer version, the cause of the emotional response is expressed as an ablative PP (73b).

- (73) ● Ablative arguments of derived subject experiencers

- a. Kati-t meg-hat-ják / meg-ijeszt-ik / meg-lep-ik a pók-ok.
 Kati-Acc Perf-move-3Pl / Perf-frighten-3Pl / Perf-surprise-3Pl the spider-Pl
 ‘Spiders move / frighten / surprise Kati.’
- b. Kati meg-hatód-ik / meg-ijed / meg-lepőd-ik a pók-ok-tól.
 Kati Perf-be_moved-3Sg / Perf-be_frightened.3Sg / Perf-be_surprised-3Sg the spider-Pl-Abl
 ‘Kati is moved / frightened / surprised by spiders.’

Ablative marking is the dominant pattern across experiencer verbs that entail the existence of a primary cause of the mental state. A few atelic verbs in the object experiencer group, nevertheless, have a subject experiencer alternate which comes with a PP that denotes a target of emotion, rather than a pure cause. Ablative marking is not possible in these cases, and an alternative postposition is used instead. (74) contains two relevant examples.

- (74) ● Postpositional PPs in derived subject experiencer constructions

- a. Kati-t aggaszt-ják / érdekl-ik a pók-ok.
 Kati-Acc worry-3Pl / interest-3Pl the spider-Pl
 ‘Spiders worry / interest Kati.’
- b. Kati aggód-ik [a pók-ok miatt] / [*a pók-ok-tól].
 Kati be_worried-3Sg the spider-3Pl because_of / the spider-3Pl-Abl
 ‘Kati is worried about the spiders.’

- c. Kati érdeklőd-ik [a pók-ok iránt] / [*a pók-ok-tól].
 Kati be_interested-3Sg the spider-3Pl towards / the spider-3Pl-Abl
 'Kati is interested in spiders.'

This PP expressing a target of emotion can be regarded as a secondary, less direct cause that is used instead of the ablative when a direct cause is not compatible with the verbal event.

Ablative causes are also compatible with anticausative verbs. This is a large group of derived verbal predicates, which do not entail the presence of a causer but which are compatible with one. The ablative PP functions as a non-core argument in this case. Anticausative verbs are derived from transitive verbs whose subject is either an agent or a non-agentive cause.

(75) ● The causative-anticausative alternation

- a. Kati / [A huzat] be-tört-e az ablak-ot.
 Kati / the draught in-break.Past-3Sg the window-Acc
 'Kati / [The draught] broke the window.'
- b. Az ablak be-tört (a huzat-tól / *Kati-tól).
 the window in-break.Past.3Sg the draught-Abl / Kati-Abl
 'The window broke from [the draught] / *Kati.'

The ablative is optional in the intransitive version, and one may decide to augment this description with the inclusion of a causer, or leave it out altogether. The insertion of the ablative phrase in anticausatives is a productive pattern, unlike in English, where the corresponding *from*-phrases often have a marked character. A strong constraint on these PPs is that they cannot denote agents, hence the ungrammaticality of *Katitól* 'from Kati' in (75b).

Remark 10. The constraint against agents is not specific to ablative case itself, but is a property of the anticausative construction. This case marker could function as an adposition marking *by*-phrases in passive constructions in earlier stages of Hungarian. It has been replaced by the case-like postposition *által* 'by' in this use, though some speakers still find ablative case an alternative in participial constructions:

- (i) %Testőrök-től / [Testőrök által] körülvé-ve,
 bodyguards-Abl / bodyguards by surround-Part,
 az elnök elhagy-t-a a palotá-t.
 the president left-3Sg the palace-Acc
 'Surrounded by bodyguards, the president left the palace.'

Ablative case is not necessarily the only option in the intransitive construction represented by (75b), since other adpositions are also available to express causes. The variation in the choice of the adposition correlates with the nature of the causal chain that is described. Consider the following sentences for illustration:

(76) ● Cause-PPs in anticausatives

- a. Az ablak be-tört a szél-től.
 the window in-break.Past.3Sg the wind-Abl
 'The window broke from the wind.'

- b. Az ablak be-tört a szél miatt.
 the window in-break.Past.3Sg the wind because_of
 ‘The window broke because of the wind.’
- c. Az ablak be-tört a szél-ben.
 the window in-break.Past.3Sg the wind-ine
 ‘The window broke in the wind.’

The ablative in (76a) denotes a direct cause, whereas the case-like postposition *miatt* ‘because of’ can be used to code any indirect causal relation between the breaking of the window and the wind (76b). Thus (76b) may be true if the wind pushed something against the window, which then broke it. (76a) is not considered true in such situations. The inessive PP in (76c) is not a primary cause marker, it is only through extra reasoning that we establish a causal relation between the breaking of the window and the wind. This relation does not have to be a direct causal relation, either.

Anticausative PPs are therefore non-core arguments of decausativized transitive verbs. They are not entailed by the intransitive verb, and their adposition is not selected by the verb. They contrast with the subject experiencers surveyed above, which do entail the existence of a cause, and which only license a specific adpositional marker to express it. The difference between the two types of ablative PP is especially clear if their complement is the reflexive anaphor. The ablative PP in the anticausative construction has the idiosyncratic meaning ‘by itself, without any external cause’.

(77) ● Anticausatives and a reflexive PP

- a. Az ablak magá-tól be-tört.
 the window itself-Abl in-break.Past.3Sg
 ‘The window broke by itself.’
- b. Az ablak magá-tól ki-nyílt.
 the window itself-Abl out-open.Past.3Sg
 ‘The window opened by itself.’

We may actually regard these examples as arguments for the default non-causal nature of anticausative descriptions. In contrast, these PPs do not have this idiosyncratic reading with experiencer verbs:

(78) ● Subject experiencers and a reflexive PP

- a. Feri magá-tól fél.
 Feri himself-Abl fear.3Sg
 ‘Feri is afraid of himself.’
- b. Feri magá-tól ijedt meg.
 Feri himself-Abl frighten.Past.3Sg Perf
 ‘Feri got frightened of himself.’

The two examples in (78) both describe a binary relation between an experiencer and a cause, which happen to coincide in the event under description. In other words, whereas the events described in (78) require the conceptualization of a

cause, the events denoted by (77) do not. The variation that we have surveyed here can be once again regarded as variation in coding causes as core argument PPs by a selected group of verbs, or as non-core arguments elsewhere.

5.3.5. Spatiotemporal PPs in the argument domain

Temporal and spatial PPs internal to the verb phrase can be selected by their verbal predicates as core or as non-core arguments, and as a group, they have some characteristic properties that distinguish them from other PP types which deserve particular attention. This section gives an overview of these properties.

Even if such PPs are listed among the arguments of a verbal predicate, it is barely the case that a designated adposition is required in their heads. One pertinent exception is the verb *telik* ‘takes a certain amount of time’, which takes a PP headed by illative case to measure out the runtime of the event under discussion:

(79) • Temporal argument with designated morphology

[Sok idő-be] / [Három hét-be] / [Négy órá-ba] telt, amíg végezt-ünk.
 much time-III / three week-III / four hour-III took.3Sg till finsih.Past-1Pl
 ‘It took us [a lot of time] / [three weeks] / [four hours] to finish.’

The noun phrase complement of this PP can be an expression that denotes a time interval, but irrespective of the choice of the noun, the P-head must be the illative case marker. The dominant pattern in this domain, however, is that the verb only selects the semantic type of the PP and any adposition is licensed that is compatible with this type. Consider the following two examples for illustration.

(80) • Temporal and spatial argument PPs showing morphological variation

- a. János Győr-ben / [a ház mellett] / [a kerítés-en kívül] maradt.
 János Győr-Ine / the house next.to / the fence-Sup outside stay.Past.3Sg
 ‘János stayed [in Győr] / [next to the house] / [outside of the fence].’
- b. Az előadás hét-kor / [a jövő hét-en] / május-ban kezdőd-ik.
 the lecture seven-Tmp / the next week-Sup / May-Ine start-3Sg
 ‘The lecture starts [at seven] / [next week] / [in May].’

The locative PP argument in (80a) can be spelt out by any of the locative adpositions, and the temporal PP argument in (80b) is likewise subject to morphological variation. We may also add to this that some verbal predicates that require a temporal or a spatial argument are compatible with either type (without any obvious change in the meaning and the grammatical properties of the verb itself).

- (81) a. A középkor-ból származ-ik ez a szokás.
 the Middle_Ages-Ela originate-3Sg this the custom
 ‘This custom originates from the Middle Ages.’
- b. Görögország-ból származik ez a szokás.
 Greece-Ela originate-3Sg this the custom
 ‘This custom originates from Greece.’

- c. *Ez a szokás származik.
 this the custom originates
 ‘*This custom originates.’

The obligatory PP argument of *származik* ‘originates’ may denote a temporal or a spatial source, and the construction is grammatical as long as one such PP is present.

As discussed in Section 5.2 of this chapter, argumental PPs frequently occur in particle verb constructions in Hungarian. Thus locative and directional argument PPs are licensed both in the absence (82a) and the presence (82b) of a verbal particle by default. If neither the PP nor the particle is present, the sentence is ungrammatical if the verb selects an obligatory spatial PP (82c). Note that the PP is still optional in the presence of the particle (82b).

- (82) ● Verbal particle and a directional PP
- a. Az asztal-ra tett-em a könyvet.
 the table-Sub put.Past-1Sg the book-Acc
 ‘I put the book on the table.’
- b. Le-tett-em a könyv-et (az asztal-ra).
 down-put-1Sg the book-Acc the table-Sub
 ‘I put the book down (on the table).’
- d. *Tettem a könyv-et
 put.Past-1Sg the book-Acc
 ‘*I put the book.’

Temporal PPs are in principle more likely to be omissible even when they serve as core arguments. The pattern in (83) is analogous to what we see in (82), except that the construction without the particle and the PP is only marked, but not totally ungrammatical.

- (83) ● Verbal particle and a temporal PP
- a. A megbeszélés-t este hat-ra halasztott-ák.
 the meeting-Acc evening six-Sub postpone.Past-3Pl
 ‘The meeting has been postponed to six in the evening.’
- b. A megbeszélés-t el-halasztott-ák (este hat-ra).
 the meeting-Acc away-postpone.Past-3Pl evening six-Sub
 ‘The meeting has been postponed (to six in the evening).’
- c. [?]A megbeszélés-t halasztott-ák.
 the meeting-Acc postpone.Past-3Pl
 ‘The meeting has been postponed.’

The omission of these PPs is in fact a widely available option in the right discourse setting, when the relevant spatiotemporal parameter of the verbal eventuality is identifiable in the context of use.

(84) ● Implicit spatiotemporal arguments

- a. János *(itt) lak-ik.
 János here live-3Sg
 ‘János lives *(here).’
- b. János (itt) marad.
 János here stay.3Sg
 ‘János stays (here).’
- c. Az előadás (most) kezdőd-ik.
 the lecture now start-3Sg
 ‘The lecture is starting (now).’
- d. (Még) Tart az előadás.
 still go_on.3Sg the lecture
 ‘The lecture is (still) going on.’

The verb *lakik* ‘live’ requires the spellout of a locative PP argument even if we could in principle accommodate the eventuality within the frame associated with the speech situation (84a). But such omission is possible with many other verbs, including *marad* ‘stay’ (84b). Most temporal PP arguments can stay implicit, as they can be generally given a specific value from the context. The most prominent and most easily available reference point is the speech time, as is the case in (84c) and (84d).

This raises the issue of how we can distinguish core spatial and temporal PP arguments from optional VP-internal spatiotemporal PPs. The division is not always easy to draw, given that many spatiotemporal argument PPs can be omitted, and any eventuality can in principle be anchored both in time and space. In other words, a spatiotemporal frame is present for every eventuality and the relevant parameters can be explicitly spelled out. This issue is discussed in more detail in Chapter 7 of this volume, and we only note here that tests that are sensitive to argumenthood support the argument status of only those spatiotemporal PP types that we have discussed above. Consider (85) for illustration.

(85) ● Spatiotemporal arguments: the paraphrase test

- a. Kati a kóli-ban lak-ik Pécs-en, és Feri is az-t tesz-i
 Kati the dorm-Ine live-3Sg Pécs-Sup and Feri too that-Acc do.3Sg
 (*a szállodá-ban).
 the hotel-Ine
 ‘Kati lives in the dorm in Pécs, and Feri too does the same thing (*in the hotel).’
- b. Kati a kóli-ban lak-ik Pécs-en, és Feri is az-t tesz-i (Győr-ben).
 Kati the dorm-Ine live-3Sg Pécs-Sup and Feri too that-Acc do.3Sg Győr-Ine
 ‘Kati lives in the dorm in Pécs, and Feri too does the same (in Győr).’

This test builds on the observation that the transitive construction *azt teszi* ‘does that’ acts as a pro-VP element that necessarily includes (PP) arguments in its scope, but it only optionally stands for VPs extended with a non-argumental PP. This is why the PP is ungrammatical in (85a), since this would spell out an argument of the target verb *lakik* ‘lives’. Without this PP, the sentence either means that Feri also

lives in the dorm (in a location that is left unspecified), or that Feri also lives in the dorm in Pécs. With this PP, the sentence should mean that Feri too lives in Pécs, but in a hotel, rather than a dorm. This is the reading that is unavailable. (85b) shows that the frame adverbial identifying the town is indeed not a core argument since it is compatible with the pro-VP construction.

5.4. Core and non-core PP arguments of adjectives

5.4.1. Introduction

This section investigates PP complements of adjectives and their contribution to the construction of the adjectival phrase. We make the assumption that adjectives can take PP arguments and that the distinction between core and non-core argument PPs is applicable to PP complements of adjectives, too. This is not necessarily an uncontroversial claim, but for the purposes of this chapter, we follow most of the pertinent literature in assuming that adjectives have argument structure and they bear important similarities to verb phrases in this respect. The discussion centres on adjectives that are either non-derived or that are not derived via a productive morphological process. These form the core group of adjectives in Hungarian, and here we focus on argument realization patterns that are characteristic of this domain.

Subsection 5.4.2 discusses the basic issues, and 5.4.3 offers an overview of the most important patterns of PP complementation in APs and an inventory of the case suffixes that are most frequently employed in this domain. Subsection 5.4.4 investigates PP complements that appear in comparative and superlative constructions.

5.4.2. Complementation in the AP

5.4.2.1. Core and non-core PP arguments of adjectives

Our understanding of what makes a PP complement a prototypical argument of the adjective is the same as what we pursued in the case of verbs in Section 5.3: a prototypical PP argument is both selected and subcategorized for by an adjectival head. In other words, the adjective necessarily describes a relation between the referent of this PP and another individual (typically the subject of the clause in predicative uses) and the morphosyntactic form of this PP is determined by the adjective. In comparison to the verbal domain, the number of adjectives that take argument PPs in this sense seems to be relatively small, and most participant PPs that appear in adjectival phrases are better regarded as non-core arguments in our terms. In this subsection, we discuss the key dimensions of the variation that we can observe in adjectival phrases in this respect. We illustrate our points with examples in which the adjective is used predicatively. The syntax of PP complements in attributive and predicative constructions is briefly discussed in Subsection 5.4.2.2.

The adjectives listed in (86) all denote a binary relation and they require the spellout of a PP argument. The adjective also dictates the choice of the adposition: it must be sublative case in (86a) and (86b), allative case in (86c), and inessive case in (86d).

- (86) ● PP arguments of adjectives
- Sára képes *(a változás-ra).
Sára capable the change-Sub
'Sára is capable of change.'
 - Sára hajlandó *(a kompromisszum-ra).
Sára willing the compromise-Sub
'Sára is ready for a compromise.'
 - Sára hasonló *(hozzám).
Sára similar All.1Sg
'Sára is similar to me.'
 - Sára biztos *(a siker-ben).
Sára certain the success-Inf
'Sára is positive about success.'

While the relational nature of these adjectives is a necessary feature of their semantics, the PP may be omitted in contexts that license its ellipsis. Therefore the judgements concerning the omission of the PP in the examples in (86) are relative to default discourse settings. In contrast, the following examples represent contexts where the PP argument can be left implicit.

- (87) ● PP argument omission
- Sokan képtelenek a változás-ra, Sára viszont képes.
many incapable.Pl the change-Sub Sára but capable
'Many are incapable of change, but Sára is capable.'
 - Most mások a körülmények, de a helyszín alapvetően hasonló.
now different.Pl the circumstance.Pl but the venue fundamentally similar
'The circumstances are different now, but the venue is essentially similar.'

This implicit argument is identical to the PP argument *a változásra* 'for the change' in the first clause in (87a). In the case of (87b), however, the comparison is with a previous venue, which is not explicitly mentioned in the sentence. Still, the omission of the PP argument is an option in the second clause in (87b). Such examples do not refute the point that the adjectives listed in (86) take **PP arguments**, since the omission of this PP is a restricted option, and the adjective entails the relevant semantic role even in elliptical contexts.

Some of the adjectives in this group may undergo specific argument structure alternations. Under the assumption that such alternations target **arguments**, this supports the view that the PPs in question are arguments themselves. *Hasonló* 'similar', for example, which denotes a relation that can be interpreted as symmetric with respect to its two arguments, can be inserted into two different syntactic constructions. It takes a PP argument in the construction that we have seen above in (86c), and which we repeat here as (88a), but roughly the same state of affairs can be expressed by using a plural subject without an accompanying allative PP (88b). The denotation of this plural PP is the union of the denotation of the subject and the PP argument in (88a), and these two constructions are alternative syntactic realizations of the same underlying adjectival concept.

- (88) a. Sára hasonló hozzám.
 Sára similar All.1Sg
 ‘Sára is similar to me.’
- b. Én és Sára hasonlóak vagyunk.
 I and Sára similar be.1Pl
 ‘I and Sára are similar.’

The existence of this alternation may be viewed as additional evidence supporting the argument status of the allative PP in (88a). Another type of alternation that results in the promotion of a PP argument to the subject position is represented in (89).

- (89) a. Sára biztos a siker-ben.
 Sára certain the success-Ine
 ‘Sára is positive about success.’
- b. Biztos a siker.
 certain the success
 ‘Success is assured.’

The adjective *biztos* ‘certain’ takes an experiencer subject and a PP that denotes the subject matter of the respective mental state ((87d) is repeated as (89a)). But in an alternative diathesis, no experiencer argument is present and the predicate asserts the probability of the event denoted by the subject. Once again, the alternation targets a PP complement that is re-expressed, as it were, as a subject argument in the alternative construction represented by (89b). This implies within our set of assumptions that the PP in (89a) is indeed an argument of the adjective *biztos* ‘certain’.

It is less obvious in many other cases that a PP complement of an adjective is an argument. Consider the following pair:

- (90) ● PP argument omission
- a. Béla féltékeny (Sándor-ra).
 Béla jealous Sándor-Sub
 ‘Béla is jealous of Sándor.’
- b. Béla mérges (Sándor-ra).
 Béla angry Sándor-Sub
 ‘Béla is angry with Sándor.’

Both adjectives denote a particular mental state of the subject experiencer, and the target of this mental state is expressed as a sublative-marked PP complement. The PPs can be omitted under relatively neutral discourse conditions in both cases, yet their relation to the adjectival head does not seem to be identical. While it is possible to deny the existence of a particular target of emotion in the case of *mérges* ‘angry’ (91b), (91a) is semantically ill-formed, suggesting that *féltékeny* ‘jealous’ describes a mental state that must include a target.

(91) ● Denying the existence of a specific target of emotion

- a. #Béla konkrétan nem féltékeny senki-re, csak úgy egyszerűen féltékeny.
 Béla specifically not jealous nobody-Sub just so simply jealous
 ‘Béla is not jealous of anyone specifically, he is just simply jealous.’
- b. Béla konkrétan nem mérges senki-re, csak úgy egyszerűen mérges.
 Béla specifically not angry nobody-Sub just so simply angry
 ‘Béla is not angry with anyone specifically, he is just simply angry.’

Consequently, the sublative PP complement of *mérges* ‘angry’ is a non-core argument. Another piece of evidence for the optional nature of this PP comes from verbalizations of the respective adjectival roots. Both *féltékeny* ‘jealous’ and *mérges* ‘angry’ can take the same verbalizing inflection, with the resulting verbs denoting activities in which the experiencer subject is behaving in a manner described by the adjective. Crucially, the sublative PP is grammatical in the former case, but not in the latter.

(92) ● Target of emotion PPs by deadjectival activity verbs

- a. Béla féltékeny-ked-ik a feleség-é-re.
 Béla jealous-Vrb-3Sg the wife-Poss.3Sg-Sub
 ‘Béla is being jealous of his wife.’
- b. Béla mérges-ked-ik (*a feleség-é-re).
 Béla angry-Vrb-3Sg the wife-Poss.3Sg-Sub
 ‘Béla is being angry (with his wife).’

In other words, *féltékenykedik* ‘be jealous’ takes a target of emotion PP, but *mérgeskedik* ‘be angry’ cannot take one. Under the assumption that that the respective adjectival and verbal entries spell out the same root concept, we can conclude that *féltékeny* ‘jealous’ is stored as a relational term with a PP argument in the lexicon of Hungarian, whereas *mérges* ‘angry’ is not necessarily relational and the optional PP argument that may appear in the adjectival construction is a non-core argument.

The two adjectives just discussed share the property that they require sublative case on their complement, and they differ in whether they entail the existence of the participant denoted by this PP or not. It is also a possible scenario that an adjectival head entails the existence of a PP argument without specifying its morphosyntactic form. Two such examples are *őshonos* ‘indigenous’ and *ismerős*, which means ‘familiar’ and which is also used with the special meaning ‘familiar with a place’. Both of these adjectives describe a relation between the subject argument and a location, but they do not subcategorize for a specific morphosyntactic marker on this PP.

- (93) a. Ez a virág nem őshonos itt / [ebben az erdő-ben] / Magyarország-on /
 this the flower not indigenous here / this.Ine the forest-Ine / Hungary-Sup /
 Európá-ban.
 Europe-Ine
 ‘This flower is not indigenous here / to this forest / to Hungary / to Europe.’

- b. Ismerős vagyok [ebben a város-ban] / Pécs-en / Magyarország-on.
 familiar am this.Ine the town-Ine / Pécs-Sup / Hungary-Sup
 ‘I am familiar with [this town] / Pécs / Hungary.’

The PP complement spells out a location in both cases, but the choice of the adposition depends solely on the nature of the noun phrase complement of this P head.

Most participant PPs that we discuss in Section 5.4.3 below are optional semantically, and thus we treat them as non-core arguments of the adjective. It seems to be a relatively marked option for an adjectival head to require the spellout of a PP complement, though, as we have seen above, this is attested in the adjectival domain just as well as in the case of verbs. The argument structure properties of adjectives may resemble those of verbs in some other respects, too. A few adjectives, for example, can select two PP complements:

- (94) ● Adjectives selecting two PPs
- a. Hálás vagyok neked a segítség-ért.
 grateful am Dat.2Sg the help-Cau
 ‘I am grateful to you for your help.’
- b. Béla adós Kati-nak 100 euró-val.
 Béla indebted Kati-Dat 100 Euro-Ins
 ‘Béla owes Kati 100 Euros.’

The dative-marked PP expresses a recipient in the above examples. An extra PP in the causal-final case spells out the reason for the speaker’s being grateful in (94a), and a PP in instrumental case specifies the amount Béla owes to Kati in (94b). These adjectives are akin in conceptual content to the recipient argument-taking verbs discussed in 5.3.2.1. One prominent grammatical difference between verbs and adjectives is that adjectives cannot assign accusative case to their complements in Hungarian, so the non-subject arguments of an adjective are always realized as PPs.

If the adjective subcategorizes for a specific morphology on its PP complement, then this will typically be a case-marker. This is another characteristic feature of adjectives that they share with verbs (see 5.3). Nevertheless, case morphology is not the sole option, and we can occasionally find case-like postpositions (95a-b), case assigning postpositions (95c), as well as less grammaticalized possessive postpositions (95d) on participant PPs licensed by adjectival heads.

- (95) ● Variation in the morphosyntactic type of the PP
- a. Jenő ideges a veszteség-ek miatt.
 Jenő worried the loss-Pl because_of
 ‘Jenő is worried about the losses.’
- b. Éva közömbös a politika iránt.
 Éva indifferent the politics towards
 ‘Éva is indifferent to politics.’

- c. *Feri ellenséges velem szemben.*
 Feri hostile Ins.1Sg opposite_to
 ‘Feri is hostile to me.’
- d. *Sára nagyon fontos számomra.*
 Sára very important for.me
 ‘Sára is very important for me.’

Thus adjectives manifest the whole array of morphological variation on the head of their PP complements in a distributional pattern that is largely reminiscent of the verbal domain.

5.4.2.2. On the syntax of PP complements in APs

When adjectives are used predicatively, the adjective itself typically occupies the preverbal verb modifier position, and the PP complement follows the copula in neutral sentences. Since the copula has a zero form in third person in present tense, we use here past tense clauses for the purposes of illustration.

(96) ● PP complements in neutral sentences

- a. *Kati eléggé barátságos volt Feri-vel.*
 Kati quite friendly was.3Sg Feri-Ins
 ‘Kati was quite friendly with Feri.’
- b. *A középkori Magyarország gazdag volt arany-ban.*
 the medieval Hungary rich was.3Sg gold-Ine
 ‘Medieval Hungary was rich in gold.’

The PP can also assume a discourse function, and then it occupies a preverbal position. It is the focus of the clause in (97a), and it is a quantifier phrase in (97b). The adjective, as any other verb modifiers would do, follows the copula if the PP is focused (97a).

(97) ● PP complements in discourse functions

- a. *Kati FERI-VEL volt barátságos.*
 Kati Feri-Ins was.3Sg friendly
 ‘It is Feri that Kati was friendly with.’
- b. *Kati Feri-vel is barátságos volt.*
 Kati Feri-Ins too friendly was.3Sg
 ‘Kati was friendly with Feri, too.’

The PP complement and the predicative adjective do not make up a constituent, or do so only very rarely. (98) is an example for this latter option, where the two occupy the focus position together, indicating that they indeed form a constituent. The adjectival head must strictly follow the PP complement in this case, hence the ungrammaticality of (98b).

(98) ● PP complements inside the predicative AP

- a. *CSAK VELEM EGYKORÚ lehet az, aki-hez férj-hez megy-ek.*
 only Ins.1Sg of.the.same.age can.be.3Sg that who-All husband-All go-1Sg
 ‘Who I marry can only be of the same age as me.’

- b. *CSAK EGYKORÚ VELEM lehet az, aki-hez férj-hez megy-ek.
 only of.the.same.age Ins.1Sg can.be.3Sg that who-All husband-All go-1Sg
 Intended meaning: ‘Who I marry can only be of the same age as me.’

This ordering restriction attests to the strict head-final nature of the Hungarian AP.

This feature is also manifest in attributive constructions. PP complements always precede the adjective if it is used attributively ((99a) vs. (99b)), and they also precede any degree modifiers of the head ((99c) vs. (99d)). Such a complex AP always precedes the noun that it modifies in Hungarian, which is once again in line with the fact that Hungarian is a head final language historically, and it still shows head final tendencies in many pockets of its grammar.

(99) ● Ordering restrictions in attributive constructions

- a. a Feri-vel barátságos lány
 the Feri-Ins friendly girl
 ‘the girl friendly with Feri’
- b. *a barátságos Feri-vel lány
 the friendly Feri-Ins girl
 intended meaning: ‘the girl friendly with Feri’
- c. a Feri-vel nagyon barátságos lány
 the Feri-Ins very friendly girl
 ‘the girl very friendly with Feri’
- d. *a nagyon Feri-vel barátságos lány
 the very Feri-Ins friendly girl
 intended meaning: ‘the girl very friendly with Feri’

If an attributive adjective has several PP complements, then their ordering is relatively free, with several factors influencing what counts as the most natural order. These factors include the syntactic category of the noun phrase complement of the P-head, the phonological weight of the PP, the relation between the PP and the adjectival head (core argument, non-core argument or adjunct), as well as the discourse function of the respective PPs and the scope relations among them, if these play a semantically relevant role. Since a detailed investigation of these factors is not relevant for our current purposes, we refer the reader to the volume on the Adjectival Phrase for a more in-depth discussion of these ordering facts.

5.4.3. *Core and non-core PP arguments of adjectives: an inventory of the most frequent patterns*

5.4.3.1. *Agentive adjectives*

Agentive adjectives describe a property of a human subject who behaves in the particular manner described by the adjective in his or her treatment of typically another human being. It is possible to paraphrase such examples switching to a verbal construction containing the adverb derived from the respective adjective. (100) is a relevant minimal pair: *barátságos* ‘friendly’ is the adjective (100a), and *barátságosan* ‘in a friendly manner’ is the adverb derived from it (100b).

(100) ● Agentive adjectives and adverbs

- a. Sára barátságos Kati-val.
Sára friendly Kati-Ins
'Sára is friendly with Kati.'
- b. Sára barátságos-an viselked-ik Kati-val.
Sára friendly-Adv behave-3Sg Kati-Ins
'Sára behaves with Kati in a friendly manner.'

The other party involved in this interaction is denoted by an instrumental case-marked PP in both constructions.

Some representatives of this group of adjectives are listed in (101).

(101) ● Agentive adjectives

agresszív 'aggressive', *barátságos* 'friendly', *bizalmas* 'confidential', *bizalmatlan* 'distrustful', *bőkezű* 'generous', *ellenséges* 'hostile', *igazságos* 'just', *igazságtalan* 'unjust', *intoleráns* 'intolerant', *irgalmas* 'merciful', *jóságos* 'kind, warm-hearted', *kedves* 'kind, nice', *kíméletes* 'tactful', *korrekt* 'fair', *óvatos* 'cautious', *őszinte* 'honest', *rendes* 'decent, kind', *szívélyes* 'cordial', *tapintatlan* 'indiscreet', *toleráns* 'tolerant', *türelmes* 'patient', *udvarias* 'polite', *udvariatlan* 'impolite', *utálatos* 'mean', etc.

These adjectives are agentive in the sense that the referent of their subject argument does not only act in a particular manner, but he or she either intends to act in such a manner or at least this manner is an aspect of the underlying activity that is in principle under the control of this participant. Those adjectives that imply some degree of enmity may optionally license the case-assigning P *szemben* 'opposite to' on their complement PP. This adposition itself takes noun phrase complements in instrumental case.

(102) ● Agentive adjectives denoting some type of enmity

- a. Péter agresszív Sándor-ral (szemben).
Péter aggressive Sándor-Ins opposite_to
'Péter is aggressive with/against Sándor.'
- b. Éva nagyon óvatos velem (szemben).
Éva very cautious Ins.1Sg opposite_to
'Éva is very cautious with me.'
- c. Bálint mindenki-vel (szemben) ellenséges.
Bálint everyone-Ins opposite_to hostile
'Bálint is hostile to everyone.'

Whether these adjectives select plain instrumental case on their PP complement or the postposition *szemben* 'opposite to', the construction implies that both the subject participant and the participant denoted by the PP interact with each other. This interaction does not have to be symmetric: being friendly or cautious with someone does not entail the same manner of behavior in the reverse direction. Nevertheless, being friendly or cautious with someone does normally mean that the two parties interact to some extent.

When this feature is absent or backgrounded, the PP complement of the adjective may also be marked by allative case. Many of the adjectives listed in (103) are compatible both with instrument or allative PPs:

- (103) ● Agentive adjectives taking instrument or allative PPs
- a. János mindig kedves / barátságos mindenki-vel.
 János always kind / friendly everyone-Ins
 ‘János is always kind/friendly with everyone.’
- b. János mindig kedves / barátságos mindenki-hez.
 János always kind / friendly everyone-All
 ‘János is always kind/friendly to everyone.’

The allative variety (103b) may imply the lack of a true interaction between the subject and the PP participants, whereas the choice of instrument case (103a) biases the description towards a more interactive construal. When this is not an option, allative case is the more natural choice:

- (104) Ez a környezet nem igazán barátságos hozzájuk / ??velük.
 this the environment not really friendly All.3Pl / Ins.3Pl
 ‘This environment is not really friendly [to them] / [??with them].’

The agentive adjectives *hűséges* ‘faithful, loyal’ and *hűtlen* ‘unfaithful’ can only take allative case. These describe manners of behavior that are potentially controllable, but they do not make reference to any interaction with the referent of the PP. This is arguably the reason for their inability to take instrumental case-marked PPs.

- (105) Péter hűséges / hűtlen Évához / *Évá-val.
 Péter faithful / unfaithful Éva-All / Éva-Ins
 ‘Péter is faithful / unfaithful [to Éva] / [*with Éva].’

The adjective *engedelmes* ‘obedient’ has a PP argument which is either in allative or dative case:

- (106) Ő engedelmes hozzám / nekem.
 He obedient All.1Sg / Dat.1Sg
 ‘He is obedient to me.’

Dative case is the more usual choice here, and it is picked when the PP participant exercises explicit control over the subject argument.

5.4.3.2. *Adjectives describing mental states*

Mental state adjectives describe a particular psychological or mental state of a designated experiencer argument. We discuss here several groups of adjectives which either necessarily or optionally manifest this psychological reading.

Subject experiencer adjectives select a human subject whose mental state they describe, and a PP complement which is interpreted as a target or a subject matter of emotion. We list some representative members of this group in (107) below. Most subject experiencer adjectives take a PP in sublative case (107a), whereas others

require illative case (107b), or the case-like postposition *miatt* ‘because of’ (107c) or *iránt* ‘towards’ (107d).

- (107) ● Subject experiencer adjectives: target or subject matter of emotion PP complements
- a. **sublative case**
büszke ‘proud’, *dühös* ‘furious, vexed’, *féltékeny* ‘jealous’, *hajlamos* ‘susceptible to, inclined to’, *hajlandó* ‘willing’, *haragos* ‘angry’, *képes* ‘able’, *képtelen* ‘unable’, *kíváncsi* ‘curious, inquisitive’, *mérges* ‘angry’, etc.
 - b. **illative case**
szerelemes ‘in love’
 - c. ***miatt*** ‘because of’
bosszús ‘vexed’, *frusztrált* ‘frustrated’, *ideges* ‘nervous, worried’, *nyugtalan* ‘troubled, agitated’, etc.
 - d. ***iránt*** ‘towards’
közömbös ‘indifferent’

Sublative case is the usual choice when the PP is interpreted as the target of the respective mental state, though *szerelemes* ‘in love’ requires illative case. (108) shows two respective examples.

- (108) a. Nagyon dühös vagyok rád.
 very vexed am Sub.2Sg
 ‘I am very vexed with you.’
- b. Szerelmes vagyok beléd.
 in.love am Ill.2Sg
 ‘I am in love with you.’

A subject matter of emotion is typically expressed with *miatt* ‘because of’, and *közömbös* ‘indifferent’ requires the case-like postposition *iránt* ‘towards’.

- (109) a. Péter ideges volt a vizsga miatt.
 Péter worried was.3Sg the exam because_of
 ‘Péter was worried about the exam.’
- b. János közömbös mások érzés-e-i iránt.
 János indifferent others feeling-Poss-Pl towards
 ‘János is indifferent to other people’s feelings.’

The distribution of sublative case and the postposition *miatt* ‘because of’ is somewhat more complicated than what the overview in (107) suggests, since many adjectives that normally take sublative PPs may also combine with a PP headed by *miatt*, and vice versa, for some of the adjectives that usually take *miatt*, sublative case is also an option. It is in fact possible for the two types of PPs to co-occur, and then the sublative PP is an obvious target of emotion, whereas the PP with *miatt* denotes a subject matter of emotion that is interpreted as a(n indirect) cause. (110) is one such example.

- (110) Sára mérges a tanár-ra a vizsga miatt.
 Sára angry the teacher-Sub the exam because_of
 ‘Sára is angry with the teacher about the exam.’

Thus subject experiencer adjectives show variation in the choice of the adposition in their PP complement, and this variation is concomitant with subtle differences in the interpretation of this PP.

A small group of subject experiencer adjectives require inessive complements:

- (111) ● Subject experiencer adjectives taking inessive PPs
- Biztos / Bizonytalan voltam az útvonal-ban.
 certain / uncertain was.1Sg the route-Ine
 ‘I was certain/uncertain about the route.’
 - Elvira jártas volt az ámtítás művészet-é-ben.
 Elvira practiced was.3Sg the deception art-Poss.3Sg-Ine
 ‘Elvira was practiced at the art of deception.’

This inessive PP describes an entity or a domain that is profiled in a designated state of mind of the subject experiencer.

Evaluative and modal adjectives take dative complements that can be interpreted as experiencers. A representative list of such dative experiencer adjectival predicates is given in (112).

- (112) ● Dative experiencer predicates: evaluative and modal adjectives
- evaluative adjectives**
elég ‘enough’, *fontos* ‘important’, *hasznos* ‘useful’, *jó* ‘good’, *kellemes* ‘pleasant’, *kellemetlen* ‘unpleasant’, *kényelmes* ‘comfortable’, *kinos* ‘embarrassing’, *kockázatos* ‘risky’, *korai* ‘early’, *könnyű* ‘easy’, *nehéz* ‘difficult, heavy’, *nyilvánvaló* ‘evident’, *rossz* ‘bad’, *sürgős* ‘urgent’, *tanácsos* ‘advisable’, *veszélyes* ‘dangerous’, etc.
 - modal adjectives**
illendő ‘proper, becoming’, *kötelező* ‘obligatory’, *lehetetlen* ‘impossible’, *lehetséges* ‘possible’, *muszáj* ‘necessary’, *szabad* ‘permitted’, *szükséges* ‘necessary’, *szükségtelen* ‘unnecessary’, *tilos* ‘forbidden’, etc.

The dative PPs these adjectives license pattern with the non-core dative PPs that we discussed in Section 5.3.2.2, and they provide a clear illustration for what we call here non-core argument PPs within the adjectival domain.

Remark 11. Each of the adjectival predicates listed in (112) may appear in three different syntactic constructions. They either select a nominative DP subject (i), an infinitival complement (ii), or a finite *that*-clause (iii).

- | | | |
|------|---|--------------------------|
| (i) | János-nak fontos a vizsga.
János-Dat important the exam
‘The exam is important to/for János.’ | [DP-subject] |
| (ii) | János-nak fontos le-vizsgáz-ni-a.
János-Dat important down-exam-Inf-3Sg
‘It is important for János to take the exam.’ | [infinitival complement] |

- (iii) János-nak fontos, hogy le-vizsgál-z-on [that-clause complement]
 János-Dat important that down-exam-Subj-3Sg
 'It is important for János that he take the exam.'

We focus on the first of these constructions here, since it provides a comprehensive illustration of the grammar of the dative PP. The clausal constructions (ii)-(iii) are discussed in detail in the volume on Non-Finite and Semi-Finite Verb Phrases.

Note first of all that the PP is genuinely optional with these predicates. The adjectives in the examples in (113) each assign some property to the subject argument without the involvement of any reference to another participant. In other words, these examples represent the non-relational use of these adjectives.

(113) ● Evaluative and modal adjectives without a PP

- a. Nagyon könnyű volt a vizsga.
 very easy was.3Sg the exam
 'The exam was very easy.'
- b. Jó a nyakkendő-d.
 good the tie-Poss.2Sg
 'Your tie is good.'
- c. Minden lehetséges.
 everything possible
 'Everything is possible.'
- b. Tilos az ásítás.
 forbidden the yawning
 'Yawning is forbidden.'

When the dative PP is introduced, its referent does not have to be construed as an experiencer. Thus, for example, (114a) is ambiguous. It may describe Éva's attitudes towards the exam, thereby representing her mental state. But (114a) may also be true if Éva does not consider the exam important at all, and it is in fact somebody else's evaluation of the situation that the sentence describes. The adjective is relational in this case too, but this relation is not a representation of Éva's mental state.

(114) ● Experiencer and non-experiencer readings

- a. Évá-nak fontos volt ez a vizsga.
 Éva-Dat important was.3Sg this the exam
 'This exam was important to Éva.'
- b. A fokhagyma jó a hangszalag-ok-nak.
 the garlic good the vocal_cord-Pl-Dat
 'Garlic is good for the vocal cords.'

That these adjectives do not necessarily require their non-core PP argument to be an experiencer is further shown by the example in (114b), in which the noun phrase complement of the adposition is not animate.

Finally, dative case is not the sole option on the PP complement of evaluative and modal predicates, since the case-like postposition *számára* 'for' is a frequent alternative. The observations that we made in Section 5.3.2 concerning the non-core

PP arguments of experiencer verbs also apply here: the postposition *számára* ‘for’ is more likely to be used with non-experiencer interpretations (though this is only a bias, rather than an absolute rule), and it requires in standard Hungarian its noun phrase complement to be animate.

(115) ● Dative case in competition with the postposition *számára* ‘for’

- a. Évá-nak / [Éva számára] fontos volt ez a vizsga.
 Éva-Dat / Éva for important was.3Sg this the exam
 ‘The exam was important to/for Éva.’
- b. A fokhagyma jó [a hangszalagok-nak] / [??a hangszalagok számára].
 the garlic good the vocal-cord.PI-Dat / the vocal_cord.PI for
 ‘Garlic is good for the vocal cords.’

Thus, other circumstances being equal, dative case in (115a) will typically single out Éva as an experiencer participant, whereas the non-experiencer reading is more available with the postposition *számára* ‘for’. In (115b), the postposition is a marked option at best, since most speakers do not find inanimate complements acceptable with this adposition.

Remark 12. The evaluative adjectives listed in (112) all denote properties that are typically or usually subject to negotiation. Whether an individual is described as good, pleasant or important may vary from one model of evaluation to another. In this respect, properties like being tall, deep or shiny are more objective and whether they hold of an individual or not is less of a matter of negotiation. Nevertheless, any adjectival predicate that can be interpreted as evaluative in some loose sense of the term may take dative PP complements in appropriate contexts:

- (i) János-nak / [János számára] túl mély ez a tó.
 János-Dat / János for too deep this the lake
 ‘This lake is too deep to/for János.’

The difference between core evaluative predicates (112) and evaluative uses of primarily non-evaluative adjectives (i) is that the latter require strong contextual support. Degree modification on the adjective is a frequent trigger, and the PP in (i) would certainly be less felicitous in the absence of *túl* ‘too’. In any other respect, these PPs are like the PPs discussed in the main text above. They are optional, they are in competition with PPs headed by the case-like postposition *számára* ‘for’, and they may or may not denote a participant whose mental state is described.

5.4.3.3. *Symmetric adjectives*

Symmetric adjectives denote a relation between two arguments that are reversible without necessarily changing the truth conditions of the proposition expressed by the sentence. If, for example, street A is parallel with street B, then street B is also parallel with street A. A list of such Hungarian adjectives is given in (116).

(116) ● **Symmetric adjectives**

arányos ‘proportional’, *azonos* ‘identical’, *egyenrangú* ‘of the same rank, equal’, *egyidejű* ‘simultaneous’, *egyidős* ‘of the same age’, *egyívású* ‘of the same age/generation’ or ‘like-minded’, *egykorú* ‘of the same age’, *párhuzamos* ‘parallel’, etc.

A relatively productive pattern in this group is the application of the prefix *egy-*, which is identical in form and is historically a derivative of the numeral *egy* ‘one’. Such adjectives have a nominal root (like *idő* ‘time’ in *egydős* ‘of the same age’) that takes adjectivizing morphology plus the prefix *egy-*.

Symmetric adjectives have two different diatheses (see also 5.4.2.1). In the first construction (117a), the two members of the symmetric relation are expressed as two distinct arguments, with the second argument bearing instrumental case. In the alternative construal, these two semantic arguments are expressed as a single syntactic argument, the plural subject (117b).

(117) ● Symmetric adjectives in two syntactic constructions

- a. Kati egyidős Béla-val.
 Kati of_the_same_age Béla-Ins
 ‘Kati is of the same age as Béla.’
- b. Kati és Béla egyidősek.
 Kati and Béla of_the_same_age
 ‘Kati and Béla are of the same age.’

This alternation is characteristic of every symmetric adjective.

Symmetry is not necessarily entailed upon every use of these adjectives. If one member of the relation is more naturally profiled than the other, then the two arguments often cannot be flipped. (118) below contains a relevant example.

(118) ● Lack of symmetry

- a. A biztosítási díj a kockázat mérték-é-vel arányos.
 the insurance fee the risk extent-Poss-Ins proportional
 ‘The insurance fee is proportional to the extent of the risk.’
- b. #A kockázat mértéke a biztosítási díj-jal arányos.
 the risk extent-Poss the insurance fee-Ins proportional
 ‘#The extent of the risk is proportional to the insurance fee.’

While the insurance fee and the extent of the risk are mutually proportional in the mathematical sense of the term, (118b) sounds unnatural. The reason is that the insurance fee is calculated relative to the extent of the risk, which makes the former the prominent figure of the discussion and thus a natural candidate for subjecthood. It is for similar reasons that the very adjective *hasonló* ‘similar’ takes allative, rather than instrumental case-marked complements. Though *hasonló* also undergoes the alternation that is characteristic of symmetric adjectives (see the examples in (88) and the discussion around them), it frequently compares one entity to another in a non-reversible manner, as in the following simile:

- (119) a. A menny-ek országa hasonló a mustármag-hoz.
 the heaven-Pl country-Poss similar the mustard_seed-All
 ‘The kingdom of heaven is like a grain of mustard seed.’
- b. #A mustármag hasonló a menny-ek ország-á-hoz.
 the mustard_seed similar the heaven-Pl country-Poss-All
 ‘#The grain of mustard seed is similar to the kingdom of heaven.’

This tendency to be involved in the comparison of non-equally prominent entities is the underlying reason why *hasonló* ‘similar’ requires allative, rather than instrumental case on its PP argument.

5.4.3.4. Cause PPs licensed by adjectives

The cause PPs of verbs that we discussed in Section 5.3.4 also occur in the adjectival domain. They can be added relatively freely to any adjective if the relevant state of affairs denoted by the AP can be conceptualized as the result of some prominent cause in the outside world. Ablative case is used to introduce direct causes (120), and the case-like postposition *miatt* ‘because of’ is chosen if the real-world causal chain is more complex and the cause under description is only indirectly related to the coming about of the result state denoted by the adjective (121).

(120) ● Direct causes: ablative case

- a. A disznótorok-tól volt hangos a december.
the pig_slaughter.Pl-Abl was.3Sg loud the December
‘December was loud with pig slaughters.’
- b. A palack büdös volt a poshadt víz-től.
the bottle smelly was.3Sg the foul water-Abl
‘The bottle was smelly from the foul water.’
- c. A tér piros volt a vértől.
the square red was.3Sg the blood-Abl
‘The square was red with blood.’

(121) ● Indirect causes: the postposition *miatt* ‘because of’

- a. A takarítás nem csak a baktériumok miatt fontos.
the cleaning not only the bacteria because_of important
‘Cleaning is important not only because of bacteria.’
- b. Filmforgatás miatt tilos a parkolás.
film_shooting because_of forbidden the parking
‘Parking is forbidden because of the shooting of a movie.’
- c. A nehéz gazdasági helyzet miatt gyenge a kormány.
the tough economic situation because_of weak the government
‘The government is weak because of the tough economic situation.’

Of the two adpositions, it is the postposition *miatt* ‘because of’ that has a wider distribution. We may in principle replace ablative case with *miatt* in the examples in (120), and this will allow us to interpret the PPs as less direct causes. (120a), for example, is true if it is the noise of the pig slaughtering activities - still a common festive event in Hungary – which makes December a loud month. If we switch to the postposition *miatt*, then this reading is less prominent or need not be the only option.

- (122) A disznótorok miatt volt hangos a december.
the pig_slaughter.Pl because_of was.3Sg loud the December
‘It is because of the pig slaughters that December was loud.’

(122) may be true if, for example, it is the cleaning up after the festive pig killing or the afterparty that is loud, and the actual event itself does not generate a significant level of noise. Ablative case is no option in the situations described in (121), because the PP introduces an indirect cause in each case.

Ablative case is also used to introduce special, agentive causers by a handful of evaluative adjectives.

(123) ● Ablative case on agents

Ez gyerekes / kedves / kegyetlen / szép / szemét volt tőled.
 this childish / kind / cruel / nice / distasteful was Abl.2Sg
 ‘This was childish / kind / cruel / nice / distasteful of you.’

The evaluative adjectives discussed in 5.4.3.2 describe the attitudes of the individuals denoted by their dative complements. The adjectives listed in (123) describe the speaker’s perspective by default, and the ablative PP introduces an agent participant whose behavior is evaluated in the speaker’s model of the world.

5.4.3.5. *Miscellaneous PP complements in APs*

In the previous sections, we have surveyed PP complementation patterns that are relatively productive in adjectival phrases. Here we add further examples of a more idiosyncratic nature to illustrate the depth of morphological variation in the coding of these PPs.

We have already pointed it out that if a particular adposition is selected on PP arguments of an adjective, then it is typically a case marker. The examples in (124) illustrate this typical case.

(124) ● Varying case morphology on PP complements of adjectives

- a. Éva elválaszthatatlan / független Kati-tól. [ablative]
 Éva inseparable / independent Kati-Abl
 ‘Éva is [inseparable from] / [independent of] Kati.’
- b. Ez a trükk méltó / méltatlan hozzád. [allative]
 this the trick worthy / unworthy All.2Sg
 ‘This trick is worthy / unworthy of you.’
- c. Éva nem alkalmas a tanár-i pályára. [sublative]
 Éva not suitable the teacher-Attr career-Sub
 ‘Éva is not suitable for a teaching career.’
- d. Ekkor már terhes / elégedett voltam a gyerek-ünk-vel. [instrumental]
 then already pregnant / satisfied was.1Sg the child-Poss.1Pl-Ins
 ‘Then I was already pregnant / satisfied with our second child.’
- e. Vad-ban gazdag / szegény ez a táj. [inessive]
 game-Ine rich / poor this the land
 ‘This land is rich / poor in game.’

We find source-type case markers (124a), directionals (124b-c), as well as instrumentals (124d) and locatives (124e) in this selection, indicating that there is no general semantic or conceptual constraint on the type of adposition selected by

adjectives. Postpositions are also an option, and (125) contains some examples where the P-head of the complement PP is not a case marker.

(125) ● Postpositional complements of adjectives

- a. Géza elfogulatlan Kati-val szemben.
 Géza unbiased Kati-Ins opposite_to
 ‘Géza is unbiased towards Kati.’
- b. A kormány iránt lojális tudósok kaptak csak ösztöndíj-at.
 the government towards loyal scientist.PI received.3PI only scholarship-Acc
 ‘Only scientists loyal to the government received a scholarship.’
- c. Éva meglehetősen tájékozott a korszak-kal kapcsolat-ban.
 Éva considerably versed the era-Ins connection-Ine
 ‘Éva is considerably well-versed in the era.’

The PP argument of these adjectives is headed by the case-assigning postposition *szemben* ‘opposite to’ in (125a), by the case-like postposition *iránt* ‘towards’ in (125b), or by the less grammaticalized adpositional element *kapcsolatban* ‘in connection with’ in (125c).

5.4.4. *PP complements in comparative and superlative constructions*

We have so far investigated constructions in which adjectives occur in their base form, and take one or two PP complements as their arguments or as their non-core arguments. The participants these PPs denote populate the space that the conceptual content of the adjective describes. In this section, we inquire into PP-types that are introduced in APs as a consequence of comparative or superlative morphology on the adjectival head.

Comparatives license two such extra PP complement types. PPs headed by adessive case denote the second member of the relation that the comparative adjective describes, the standard of comparison (126). PPs headed by instrumental case measure the degree of difference between two members of this relation. The instrumental PP in (127), for example, asserts the age gap between Kati and somebody else in terms of years.

(126) ● Comparative constructions: adessive PPs

- a. Kati fiatal-abb volt Éva-nál.
 Kati young-Comp was.3Sg Éva-Ade
 ‘Kati was younger than Éva.’
- b. a Kati-nál fiatal-abb lány
 the Kati-Ade young-Comp girl
 ‘the girl younger than Kati’

(127) ● Comparative constructions: instrumental PPs

- a. Kati fiatal-abb volt 5 év-vel.
 Kati young-Comp was.3Sg 5 year-Inst
 ‘Kati was 5 years younger.’

- b. az 5 év-vel fiatal-abb lány
 the 5 year-Inst young-Comp girl
 ‘the girl 5 years younger’

Neither of these two PP types is obligatory syntactically, and they can co-occur. When the comparative adjective is used predicatively, these PP complements are normally extracted from the AP and they can in principle occupy any syntactic position available for PPs. We illustrate this with a focused instrumental PP in (128a), and a contrastively topicalized adessive PP in (128b).

(128) ● Adessive and instrumental PPs with predicative comparative adjectives

- a. 5 ÉV-VEL volt fiatal-abb Kati Sándor-nál.
 5 year-Ins was.3Sg young-Comp Kati Sándor-Ade
 ‘It was by 5 years that Kati was younger than Sándor.’
- b. Sándor-nál bezzeg fiatal-abb volt Kati 5 évvel.
 Sándor-Ade as.for young-Comp was.3Sg Kati 5 year-Ins
 ‘As for Sándor, Kati was 5 years younger than him.’

When the comparative adjective is used attributively, the instrumental PP normally occurs closer to the adjectival head, following the adessive PP (129a). The inverse order is marked (129b).

(129) ● Adessive and instrumental PPs with attributive comparative adjectives

- a. a Kati-nál 5 év-vel fiatal-abb lány
 the Kati-Ade 5 year-Ins young-Comp girl
 ‘the girl 5 years younger than Kati’
- b. ??az 5 év-vel Kati-nál fiatal-abb lány
 the 5 year-Ins Kati-Ade young-Comp girl
 ‘the girl 5 years younger than Kati’

The PP complements must precede the adjectival head in the attributive construction, as (129) shows.

When the argument structure of the adjective contains an argumental PP, then it can co-occur with the two PP-types that are licensed in the comparative construction. The instrumental PP measuring the degree of difference tends to form a constituent with the head (especially if it does not denote a specific degree, as in (130) below), but the adessive PP and the PP argument of the adjectival head are normally extracted.

- (130) Kati-nál Éva sok-kal féltékeny-ebb volt Sára-ra.
 Kati-Ade Éva much-Ins jealous-Comp was.3Sg Sára-Sub
 ‘As for Kati, Éva was much more jealous of Sára than her.’

The degree-term is also left-adjacent to the comparative adjective in the attributive construction, and the adessive PP and the target of emotion argument of the adjective precede it in either of the two possible orders:

- (131) a. a Kati-nál Sára-ra sok-kal féltékeny-ebb lány
 the Kati-Ade Sára-Sub much-Ins jealous-Comp girl
 'the girl much more jealous of Sára than Kati'
- b. a Sára-ra Kati-nál sok-kal féltékeny-ebb lány
 the Sára-Sub Kati-Ade much-Ins jealous-Comp girl
 'the girl much more jealous of Sára than Kati'

These ordering facts are characteristic of the attributive construction in general. All the PP types discussed here precede the adjectival head, and the degree modifier is closer to the head than any other participant PPs licensed in the comparative construction.

Remark 13. Adessive case is the standard morphology on the comparison PP in comparative constructions. But it is not the sole option, as many speakers opt for ablative case in the same function. This is especially so if this PP is pronominal.

- (i) %Kati fiatal-abb volt tőlem.
 Kati young-Comp was.3Sg Abl.1Sg
 'Kati was younger than me.'
- (ii) %a tőlem fiatal-abb lány
 the Abl.1Sg young-Comp girl
 'the girl younger than me'

This use of the ablative case is essentially the regional colloquial standard for many speakers in the Eastern part of Hungary, and for many others it is a more or less free substitute for adessive case. Another instance of variation in this function is the doubling of the adessive case morpheme on pronominal PPs in comparative constructions.

- (iii) %a nál-am-nál sok-kal fiatal-abb lány
 the Ade-1Sg-Ade much-Ins young-Comp girl
 'the girl much younger than me'

This doubling construction is restricted both in terms of register and its distribution, and it is definitely recognized as dialectal. It is much more marked in this respect than the ablative construction in (i) and (ii), and it clearly does not have the status of a regional standard.

Superlative constructions require a domain which they quantify over, making the assertion that only one individual (or a group of them) has the relevant property to a maximal degree within this domain. Thus, unlike in the case of comparatives, a designated individual is not compared to another one, but it is singled out as a member of a larger group. It is not compulsory to make explicit reference to this group, and if we do so, we can in principle select any appropriate adposition for the purpose:

- (132) ● Domain PPs in superlative constructions
- a. Sára a leg-magas-abb az osztály-ban.
 Sára the Spr1-tall-Comp the class-1nc
 'Sára is the tallest in the class.'
- b. Éva volt a leg-okos-abb közöttünk.
 Éva was.3Sg the Spr1-tall-Comp among.1Pl
 'Éva was the cleverest among us.'

- c. Feri volt a leg-jobb a verseny-en.
 Feri was.3Sg the Sprl-good.Comp the competition-Sup
 ‘Feri was the best at the competition.’

The domain PP is headed by inessive case in (132a), by a case-like postposition in (132b) and by superessive case in (132c).

5.5. PP complements in noun phrases

5.5.1. Introductory remarks

Nouns have argument structure if they inherit one from their verbal or adjectival root. (133) and (134) provide an example for each scenario.

(133) ● Deverbal nominalization

- a. Kati találkozott *(Évá-val)
 Kati met.3Sg Éva-Ins
 ‘Kati met Éva.’
- b. Kati találkozás-a *(Évá-val)
 Kati meet-Nmn-Poss.3Sg Éva-Ins
 ‘Kati’s meeting with Éva’

(134) ● Deadjectival nominalization

- a. Lajos hű *(a párt-hoz).
 Lajos loyal the party-All
 ‘Lajos is loyal to the party.’
- b. hűség (a párt-hoz)
 loyal-Nmn the party-All
 ‘loyalty to the party.’

The deverbal noun *találkozás* ‘meeting’ may denote a complex event (133b), including each of the two participant PPs that are necessary in the verbal construction, too (133a). The deadjectival noun *hűség* ‘loyalty’ takes an allative PP complement (134b) that is similar to the allative PP argument of the adjective (134a). The difference in this case is that the allative PP does not need to be spelled out in the nominal construction.

What is remarkable about the obligatory nature of the comitative PP in the complex event nominalization example in (135b) is that it is not obviously the result of some underlying semantic or conceptual need. To recognize this, it is enough to compare *találkozás* ‘meeting’ with the noun *meeting*, which is a recent loan in colloquial Hungarian in the sense of ‘business meeting’.

- (135) a. Holnap lesz Kati első meeting-je (az igazgató-val).
 tomorrow be.Fut.3Sg Kati first meeting-Poss the director-Ins
 ‘Kati’s first meeting (with the director) will take place tomorrow.’
- b. Holnap lesz Kati első találkozás-a *(az igazgató-val).
 tomorrow be.Fut.3Sg Kati first meeting-Nmn-Poss the director-Ins
 ‘Kati’s first meeting with the director will take place tomorrow.’

Both nouns denote a meeting event with two participants, but only the deverbal *találkozás* ‘meeting’ requires the spellout of the comitative PP in this construction where the agent is spelled out as the possessor of the nominalized head. It is therefore the grammatical properties of the construction that may dictate the spellout of participant PPs in the case of deverbal nominalizations.

This section provides an overview of how PP complements are licensed in noun phrases. In Section 5.5.2, we investigate non-event nouns first. We regard both deverbal and deadjectival nouns as event nominalizations, extending the meaning of the term *event* to states to cover denotations typical of deadjectival nouns and stative verbs. We focus on deverbal nominalizations for expository purposes, since they provide the best illustration of the constraints governing the grammar of complement PPs in noun phrases. In Section 5.5.3, we discuss simple and complex event nominalizations. Our aim here is to revisit these phenomena from the special perspective of the grammar of PP complements in noun phrases. We refer the readers to the volume on Nouns and Noun Phrases for more comprehensive discussions of nominalization constructions in Hungarian.

5.5.2. *Simple nouns and PP complements*

Nouns, in principle, may take any kind of complements that are compatible with their lexical-conceptual content. Some examples are listed in (136) below.

- (136) a. Lány gyöngy fülbevaló-val
 girl pearl earring-Ins
 ‘Girl with the pearl earring’
- b. Dal a boldogság-ról
 song the happiness-Del
 ‘Song about happiness’
- c. Nyár a hegy-en
 summer the hill-Sup
 ‘Summer on the hill’
- d. Ház a sziklák alatt
 house the rock.Pl under
 ‘House under the rocks’

The PP complement is headed by a case marker in (136a-c), and by a postposition in (136d). The instrumental PP in (136a) denotes an attribute of the girl, the delative PP describes the topic of the song in (136b), and the PPs in (136c-d) associate the referent of the noun head with a respective location.

The examples in (136) are all conspicuously titles. This is so because unlike in English, PP complements of nouns in Hungarian prefer not to stay in the post-head zone. Titles represent the primary context where this configuration is the most natural. If the complex noun phrase is embedded in a clausal structure (especially in a clause-final position), then the post-head position for the complement PP is acceptable if the head noun is nominative or accusative (137a-b). If the head noun is the complement of an adposition, then this construction is usually ungrammatical.

- (137) ● Post head complement PPs in noun phrases
- a. Tetszik nekem egy új könyv Béla-ról.
 appeal.3Sg Dat.1Sg a new book Béla-Del
 ‘I like a new book about Béla.’
 - b. Olvast-am egy új könyv-et Béla-ról.
 read.Past-1Sg a new book-Acc Béla-Del
 ‘I read a new book about Béla.’
 - c. *Bízom egy új könyv-ben Béláról.
 trust.1Sg a new book-Ine Béla-Del
 ‘I trust in a new book about Béla.’
 - d. *Kitart-ok egy új könyv mellett Béla-ról.
 out.stand-1Sg a new book next.to Béla-Del
 ‘I stand by a new book about Béla.’

In other words, if the complex noun phrase itself is embedded in a PP, then the PP complement of the noun head cannot stay in the post-head zone. The divide that we see in (137) does not disappear if the complement PP is extracted into positions outside of complex noun phrase (though even the good examples get somewhat worse):

- (138) ● Extraction possibilities for PP complements
- a. [?]Béláról tetszik nekem egy új könyv.
 Béla-Del appeal.3Sg Dat.1Sg a new book
 ‘As for Béla, I like a new book about him.’
 - b. [?]Béla-ról talál-am egy új könyv-et.
 Béla-Del find.Past-1Sg a new book-Acc
 ‘As for Béla, I found a new book about him.’
 - c. *Béláról bízom egy új könyv-ben.
 Béla-Del trust.1Sg a new book-Ine
 Intended meaning: ‘As for Béla, I trust in a new book about him.’
 - d. *Béla-ról kitartok egy új könyv mellett.
 Béla-Del out.stand.1Sg a new book next_to
 Intended meaning: ‘As for Béla, I stand by a new book about him.’

In practice, speakers tend to avoid populating the complement zone of simple (non-eventive) noun phrases, and even (137a-b) and (138a-b) have a somewhat marked character. The preferred alternative, in compliance with the head-final tendencies of Hungarian, is to insert these complement PPs into the pre-head zone of the noun phrase. This phenomenon is known as **attributivizing** in the pertinent literature on Hungarian. There are essentially two ways for complement PPs to survive in pre-head positions: they can take on adjectivizing morphology, or they can be embedded in participial clauses. In the rest of this section, we discuss these two manners of structure building with a focus on non-eventive noun-heads.

The derivational suffix *-i* can productively create adjectival phrases out of most postpositional or adverbial phrases (see Chapter 2 for the details). It cannot, however, be used on case-marked nouns, compare (139a) and (139b). The only

morphological option in this latter case is to drop the case marker, and try using a denominal adjectivalizing suffix. This happens in (139c), where the noun stem takes the adjectival suffix *-(V)s*.

(139) ● PP complements attributivized by derivational morphology

- a. a sziklák alatt-i ház
 the rock.Pl under-Attr house
 ‘the house under the rocks’
- b. *a gyöngy fülbevaló-val-i lány
 the pearl earring-Ins-Attr girl
 Intended meaning: ‘the girl with the pearl earring’
- c. a gyöngy fülbevaló-s lány
 the pearl earring-Adj girl
 ‘the girl with the pearl earring’

(139c) in fact involves a conversion from a PP to a noun phrase through the loss of the case suffix, and it cannot be regarded as a productive attributivizing device. Nevertheless, it is representative of a syntactic construction that is used to host non-argumental modifiers of the noun head in the pre-head zone in Hungarian.

The other productive possibility to license PP complements of noun heads in the pre-head zone is to embed them in a participial phrase headed by some semantically appropriate verbal root. This is the only productive option if the PP is headed by a case marker (140a-c), and a competitor to *-i*-suffixation in the case of postpositions (140d).

(140) ● PP complements embedded in participial constructions

- a. az Éva-nak írt levél
 the Éva-Dat write.Part letter
 ‘the letter written to Éva’
- b. a Béla-ról szóló könyv
 the Béla-Del tell.Part book
 ‘the book about Béla’
- c. a gyöngy fülbevaló-val le-festett lány
 the pearl earring-Ins down-paint.Part girl
 ‘the girl painted with the pearl earring’
- d. a sziklák alatt levő ház
 the rock.Pl under be.Part house
 ‘the house under the rocks’

The productive participial form of the copula *van* ‘is’ is *levő* ‘being’ (*levő* is an alternative phonological form of this participle, felt to be a slightly archaic variant by most native speakers). This is the typical choice for the participle functioning as an attributivizer with locative and temporal PP complements. (141) is another illustration for its use.

- (141) a. A hűtő jó állapot-ban van.
 the fridge good condition-ine is
 ‘The fridge is in a good condition.’
- b. a jó állapot-ban levő hűtő
 the good condition-ine be.Part fridge
 ‘the fridge that is in a good condition’

The copular verb of the finite clause (141a) corresponds to the participle *levő* in the noun phrase paraphrase (141b).

5.5.3. Event nominalizations and PP complements

It is customary to distinguish at least two different types of event nominals. The arguments or adjuncts of the verb or adjective that has a nominal counterpart do not necessarily need to be expressed in the case of simple event nominalizations. (142) contains some examples. The expression of the PP always remains an option in these cases, even if the relevant participant is entailed by the use of the noun.

- (142) ● Simple event nominals
- a. verseny (az idő-vel)
 race the time-Ins
 ‘race with time’
- b. képesség (a megértés-re)
 ability the understanding-Sub
 ‘ability for understanding’
- c. János verseng-és-e-i (Kati-val)
 János rival-Nmn-Poss-Pl Kati-Ins
 ‘János’s rivalries (with Kati)’

The noun *verseny* ‘race’ is input to the formation of the pertinent verb *versenyez* ‘compete’, *képesség* ‘ability’ is the noun derived from the adjective *képes* ‘able’, and *versengés* ‘rivalry’ is derived from the verb *verseng* ‘rival’ with the deverbal nominalizer suffix *-As*.

This latter suffix productively creates complex event nominals from verbs. Complex event nominals inherit the argument structure of the input verb, and therefore the argumental PPs of the verb are also present in these nominalizations.

- (143) ● Complex event nominalization
- a. A tanár figyelmeztette a gyerek-ek-et a veszély-re.
 the teacher warn.Past.3Sg the child-Pl-Acc the danger-Sub
 ‘The teacher warned the children of danger.’
- b. a gyerek-ek figyelmeztet-és-e a veszély-re a tanár által
 the child-Pl warn-Nmn-Poss.3Sg the danger-Sub the teacher by
 ‘the warning of the children by the teacher of the danger’

Here we give a short overview of how the two types of event nominals differ in the expression of complement PPs from the non-eventive nominals we have surveyed in

the previous subsection. The interested reader will find a more detailed discussion of event nominalizations in the volume on Nouns and Noun Phrases.

The PP complements of event nominals are also preferably attributivized, other factors being equal (see also below). In the case of these, a special participial form of the copula is used to create a syntactic environment in which these PPs survive in a pre-head position. This element is *való*, which is in fact an empty formative, rather than a productive form of the copula. As we have seen above in the discussion of (140d), the productive form of the copula is *levő* ‘being’. *Való*-participle formation is an option in the case of each of the event nominals in (142) and (143):

(144) ● *Való*-nominalizations

- a. az idő-vel való verseny
the time-Ins being race
‘race with time’
- b. a megértés-re való képesség
the understanding-Sub being ability
‘ability for understanding’
- c. János Kati-val való verseng-és-e-i
János Kati-Ins being rival-Nmn-Poss-Pl
‘János’s rivalries with Kati’
- d. a gyerekek-nek a tanár által a veszély-re való figyelmeztet-és-e
the children.Pl-Dat the teacher by the danger-Sub being warn-Nmn-Poss
‘the warning of the children by the teacher of the danger’

Való could also be replaced by any contextually appropriate verbal participle in analogy with the examples we have listed in (140). But the *való*-construction is restricted to event nominals, and it is not available for the non-eventive nominals in (140).

An interesting contrast can be observed among event nominals if both the adjectivalizer suffix *-i* (see the previous subsection) and the *való*-construction are available. Consider the following example for illustration.

- (145) a. János ebéd után rohangált.
János lunch after ran.3Sg
(i) ‘János was running about after lunch.’
(ii) ‘János was running after lunch.’ (i.e. János was busy getting lunch somehow).
- b. János ebéd után-i rohangál-ás-a
János lunch after-Attr run-Nmn-Poss
(i) ‘János’s running about after lunch’
(ii) ‘János’s running after lunch’
- c. János ebéd után való rohangál-ás-a
János lunch after being run-Nmn-Poss
(i) *‘János’s running about after lunch’
(ii) ‘János’s running after lunch’

The PP complement of the verb *rohángál* ‘run, hurry, scurry’ can either function as an adjunct specifying the time-frame of the event, or it can also be construed as an argument of the verb in another diathesis. In this case, the sentence describes a hurried chase aimed at getting lunch somehow. Since this PP is headed by a postposition, the adjectivalizing suffix *-i* can be added to it. The result is ambiguous, since (145b) either has the adjunct reading of the PP or the argument reading. The *való*-construction, on the other hand, can only be interpreted as the complex event nominalization of the argument-PP construction. Thus, if both strategies of **attributivization** are available, the *való*-construction creates complex event nominals with the preferred argument reading of the PP complement, if such reading is available.

A further difference between event nominals and non-eventive nouns is that the former inherit the verb modifiers of the input verb, which can occupy a prehead position in the complex event noun phrase without any attributivizing device. Thus in (146a), the directional *Londonba* ‘to London’ occupies the immediate prehead position, in analogy with the verb modifier position that it would occupy in finite verbal structures.

(146) ● Verb modifiers in event nominalizations

- a. János London-ba érkez-és-e
 János London-III arrive-Nmn-Poss
 ‘János’s arrival in London’
- b. János meg-érkez-és-e London-ba
 János Perf-arrive-Nmn-Poss London-III
 ‘János’s arrival in London’

The pre-head position is occupied by the verbal particle *meg* in (146b), which makes it possible for the illative PP to stay in the post-head zone – provided it is a title, or the whole DP is a nominative or accusative argument of the verb. Otherwise, as we have seen above, the PP is extraposed or it is expressed in the pre-head zone of the noun phrase with the help of *való*.

5.6. Summary

This chapter discussed the grammar of so-called participant PPs in Hungarian, and it has argued in particular that a systematic distinction can be drawn between core and non-core arguments of verbal and adjectival predicates. While the former are obligatory (or at least they are entailed by the predicate) and their adpositional head is selected by the predicate, the latter are optional and they have variable morphological realization. We surveyed the grammar of a representative array of participant PPs selected by verbal and adjectival heads in Hungarian. The issue of PP complementation in Noun Phrases has been discussed separately, and we focused on the distinguishing morphosyntactic behaviour of deverbal and deadjectival nominalizations. Since both verb modifiers in general, and verbal particles in particular play an important role in the construction of the Hungarian clause, the chapter commenced with an inventory of the various different types of particle verb constructions that the language has and with an overview of the

variation between verbs that select one PP argument as a verb modifier and verbs that do not.

5.7. Bibliographical notes

Komlósy (1992, 1994), Alberti (1997) and Kiefer (2008) provide in depth discussions of argument structure phenomena in Hungarian, including many of the PP constructions we have discussed in this chapter. The following works focus on respective Hungarian PP types that are covered here: Nemesi (2003), Komlósy (2000), Horvath and Siloni (2011) and Bartos (2011) make comments on the behavior of comitative PPs in Hungarian causative constructions; Rákosi (2003, 2008) presents a detailed description of comitative PPs in reciprocal verb constructions; Bibok (2018) and Rákosi (2013) discuss instrumental PPs; Rákosi (2006, 2009a) investigates dative experiencers as well as other recipient or goal-type PPs; and Rákosi (2009b, 2012a) studies cause PPs in Hungarian. Komlósy (1992, 1994), as well as Gábor and Héja (2006) develop Hungarian specific tests to distinguish arguments from adjuncts. Rákosi (2006, 2009a,b) argues on the basis of mainly Hungarian data that core argument PPs are to be distinguished from optional thematic dependants of predicates, which he analyzes as thematic adjuncts. Kálmán (2006) argues against the assumption that the argument-adjunct distinction is a dichotomy, and proposes to treat relevant phenomena as an instance of gradient, rather than discrete categorization.

Kiefer and Ladányi (2000b), É. Kiss (2006a) and Surányi (2009c) are comprehensive surveys of the grammar of verbal particles in Hungarian. Particle verb constructions in which both a particle and a PP associate are present have received particular attention in the literature. Ackerman (1987), Ackerman and Webelhuth (1997), É. Kiss (1998), Laczkó and Rákosi (2011, 2013), as well as Rákosi and Laczkó (2011) treat these particle verb complexes essentially as lexical units, which may take complement PPs. É. Kiss (2002), Ürögdi (2003) and Surányi (2009a,b) propose that verbs and particles combine in the syntax. The PP complement inside the verb phrase is in an appositive relation to the particle for É. Kiss (2002), whereas Ürögdi (2003) and Surányi (2009a,b) argue that they form a chain in the case of particle types that show agreement morphology (i.e., case markers and inflecting postpositions used as particles).

Laczkó (1995, 2003) offers a detailed overview of how PP complements of noun phrases are licensed in Hungarian, and É. Kiss (2000) also includes pertinent discussion within a general survey of the grammar of the Hungarian noun phrase.